

10/070,794

=> d his

(FILE 'HOME' ENTERED AT 15:31:36 ON 20 OCT 2006)

FILE 'SCISEARCH' ENTERED AT 15:32:29 ON 20 OCT 2006

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 15:32:43 ON 20 OCT 2006

L1 828 S AMPK AND GAMMA
L2 320 S HUMAN AND L1
L3 184 S PRKAG3
L4 52 S HUMAN AND L3
L5 347 S L2 OR L4
L6 0 S METABLOIL? AND L5
L7 0 S METABLOL? AND L5
L8 203 S METABOL? AND L5
L9 112 DUP REM L8 (91 DUPLICATES REMOVED)
L10 4227 S GLYCOGEN (W)ACCUMULAT?
L11 8 S L9 AND L10
E ANDERSSON L/AU
L12 2704 S E3
E LOOFT C/AU
L13 141 S E3
E CHARDON P/AU
L14 482 S E3
E MILAN D/AU
L15 417 S E3
L16 3620 S L12 OR L13 OR L14 OR L15
L17 27 S L5 AND L16
L18 11 DUP REM L17 (16 DUPLICATES REMOVED)

=>

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* * * * * Welcome to STN International * * * * *

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NEWS 2 "Ask CAS" for self-help around the clock
NEWS 3 AUG 09 INSPEC enhanced with 1898-1968 archive
NEWS 4 AUG 28 ADISCTI Reloaded and Enhanced
NEWS 5 AUG 30 CA(SM)/Capius(SM) Austrian patent law changes
NEWS 6 SEP 11 CA/Capius enhanced with more pre-1907 records
NEWS 7 SEP 21 CA/Capius fields enhanced with simultaneous left and right
truncation
NEWS 8 SEP 25 CA(SM)/Capius(SM) display of CA Lexicon enhanced
NEWS 9 SEP 25 CAS REGISTRY(SM) no longer includes Concord 3D coordinates
NEWS 10 SEP 25 CAS REGISTRY(SM) updated with amino acid codes for pyrrolysine
NEWS 11 SEP 28 CEABA-VTB classification code fields reloaded with new
classification scheme
NEWS 12 OCT 19 The Derwent World Patents Index suite of databases on STN will
be enhanced and reloaded on October 22, 2006
NEWS 13 OCT 19 LOGOFF HOLD duration extended to 120 minutes
NEWS 14 OCT 19 E-mail format enhanced

NEWS EXPRESS JUNE 30 CURRENT WINDOWS VERSION IS V8.01b, CURRENT
MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
AND CURRENT DISCOVER FILE IS DATED 26 JUNE 2006.

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FILE 'HOME' ENTERED AT 15:31:36 ON 20 OCT 2006

=> file medline embase biosis biotechds scisaerch hcapius ntis lifesci
'SCISAERCH' IS NOT A VALID FILE NAME
Enter "HELP FILE NAMES" at an arrow prompt (=>) for a list of files
that are available. If you have requested multiple files, you can
specify a corrected file name or you can enter "IGNORE" to continue
accessing the remaining file names entered.
ENTER A FILE NAME OR (IGNORE):end

```
=> file scisearch
COST IN U.S. DOLLARS          SINCE FILE      TOTAL
                                ENTRY      SESSION
FULL ESTIMATED COST          0.42          0.42
```

FILE 'SCISEARCH' ENTERED AT 15:32:29 ON 20 OCT 2006
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FILE COVERS 1974 TO 20 Oct 2006 (20061020/ED)

SCISEARCH has been reloaded, see HELP RLOAD for details.

```
=> file medline embase biosis biotechds scisearch hcaplus ntis lifesci
COST IN U.S. DOLLARS          SINCE FILE      TOTAL
                                ENTRY      SESSION
FULL ESTIMATED COST          2.46          2.88
```

FILE 'MEDLINE' ENTERED AT 15:32:43 ON 20 OCT 2006

FILE 'EMBASE' ENTERED AT 15:32:43 ON 20 OCT 2006
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FILE 'BIOSIS' ENTERED AT 15:32:43 ON 20 OCT 2006
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FILE 'NTIS' ENTERED AT 15:32:43 ON 20 OCT 2006
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FILE 'LIFESCI' ENTERED AT 15:32:43 ON 20 OCT 2006
COPYRIGHT (C) 2006 Cambridge Scientific Abstracts (CSA)

```
=> s AMPK and gamma
L1          828 AMPK AND GAMMA
```

```
=> s human and l1
L2          320 HUMAN AND L1
```

```
=> s PRKAG3
L3          184 PRKAG3
```

```
=> s human and l3
L4          52 HUMAN AND L3
```

```
=> s l2 or l4
L5          347 L2 OR L4
```

```
=> s metabloil? and l5
L6          0 METABLOIL? AND L5
```

=> s metablol? and l5
L7 0 METABLOL? AND L5

=> s metabol? and l5
L8 203 METABOL? AND L5

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9 112 DUP REM L8 (91 DUPLICATES REMOVED)

=> d 1-112 ibib

L9 ANSWER 1 OF 112 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2006-18915 BIOTECHDS
TITLE: Evaluating an indicator of lifespan regulation comprises
evaluating adenine trinucleotide phosphate (ATP) and adenine
mononucleotide phosphate (AMP) in a subject and determining
an indicator parameter;
AMP-activated protein-kinase-specific nucleic acid, RNA
molecule for use in aging gene therapy
AUTHOR: APFELD J; OCONNOR G
PATENT ASSIGNEE: APFELD J; OCONNOR G
PATENT INFO: US 2006147947 6 Jul 2006
APPLICATION INFO: US 2005-145471 3 Jun 2005
PRIORITY INFO: US 2005-145471 3 Jun 2005; US 2002-430804 4 Dec 2002
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2006-520151 [53]

L9 ANSWER 2 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on
STN
ACCESSION NUMBER: 2006:965659 SCISEARCH
THE GENUINE ARTICLE: 089VU
TITLE: Rosiglitazone treatment enhances acute AMP-activated
protein kinase-mediated muscle and adipose tissue glucose
uptake in high-fat-fed rats
AUTHOR: Ye J M (Reprint); Dzamko N; Hoy A J; Iglesias M A; Kemp B;
Kraegen E
CORPORATE SOURCE: Univ Sydney, Diabet & Obes Res Program, Garvan Inst Med
Res, 384 Victoria St, Darlinghurst, NSW 2010, Australia
(Reprint); Univ Sydney, Diabet & Obes Res Program, Garvan
Inst Med Res, Darlinghurst, NSW 2010, Australia; Univ
Melbourne, St Vincents Inst Med Res, Melbourne, Vic,
Australia; Univ Melbourne, Dept Med, Melbourne, Vic,
Australia
j.ye@garvan.org.au
COUNTRY OF AUTHOR: Australia
SOURCE: DIABETES, (OCT 2006) Vol. 55, No. 10, pp. 2797-2804.
ISSN: 0012-1797.
PUBLISHER: AMER DIABETES ASSOC, 1701 N BEAUREGARD ST, ALEXANDRIA, VA
22311-1717 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 31
ENTRY DATE: Entered STN: 20 Oct 2006
Last Updated on STN: 20 Oct 2006
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 3 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN DUPLICATE 1
ACCESSION NUMBER: 2006:370821 BIOSIS
DOCUMENT NUMBER: PREV200600366187
TITLE: Characterization of the role of gamma 2 R531G
mutation in AMP-activated protein kinase in cardiac

hypertrophy and Wolff-Parkinson-White syndrome.

AUTHOR(S): Davies, Joanna K.; Wells, Dominic J.; Liu, Ke; Whitrow, Helen R.; Daniel, Tyrone D.; Grignani, Robert; Lygate, Craig A.; Schneider, Juergen E.; Noel, Gaetane; Watkins, Hugh; Carling, David [Reprint Author]

CORPORATE SOURCE: Univ London Imperial Coll Sci and Technol, Cellular Stress Grp, MRC, Ctr Clin Sci, Hammersmith Campus, DuCane Rd, London W12 0NN, UK
dcarling@imperial.ac.uk

SOURCE: American Journal of Physiology - Heart and Circulatory Physiology, (MAY 2006) Vol. 290, No. 5, pp. H1942-H1951. ISSN: 0363-6135.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 26 Jul 2006
Last Updated on STN: 26 Jul 2006

L9 ANSWER 4 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:912497 SCISEARCH

THE GENUINE ARTICLE: 084CP

TITLE: Activation of AMPK alpha- and gamma-isoform complexes in the intact ischemic rat heart

AUTHOR: Li J; Coven D L; Miller E J; Hu X Y; Young M E; Carling D; Sinusas A J; Young L H (Reprint)

CORPORATE SOURCE: Yale Univ, Sch Med, Sect Cardiovasc Med, Dept Internal Med, 3 FMP, 333 Cedar St, New Haven, CT 06520 USA (Reprint); Yale Univ, Sch Med, Sect Cardiovasc Med, Dept Internal Med, New Haven, CT 06520 USA; Baylor Coll Med, Dept Pediat, Childrens Nutr Res Ctr, Houston, TX 77030 USA; Univ London Imperial Coll Sci Technol & Med, Hammersmith Hosp, Cellular Stress Grp, London, England lawrence.young@yale.edu

COUNTRY OF AUTHOR: USA; England

SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY-HEART AND CIRCULATORY PHYSIOLOGY, (OCT 2006) Vol. 291, No. 4, pp. H1927-H1934. ISSN: 0363-6135.

PUBLISHER: AMER PHYSIOLOGICAL SOC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814 USA.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 46

ENTRY DATE: Entered STN: 5 Oct 2006
Last Updated on STN: 5 Oct 2006
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 5 OF 112 MEDLINE on STN

ACCESSION NUMBER: 2006066892 MEDLINE

DOCUMENT NUMBER: PubMed ID: 16452250

TITLE: Thiazolidinediones inhibit insulin-like growth factor-i-induced activation of p70S6 kinase and suppress insulin-like growth factor-I tumor-promoting activity.

AUTHOR: He Guobin; Sung You Me; Digiovanni John; Fischer Susan M

CORPORATE SOURCE: Department of Carcinogenesis, University of Texas M.D. Anderson Cancer Center, Science Park-Research Division, 1808 Park Road 1C, Smithville, TX 78957, USA.

CONTRACT NUMBER: CA 100140 (NCI)
CA 16672 (NCI)
CA 37111 (NCI)
ES 07784 (NIEHS)

SOURCE: Cancer research, (2006 Feb 1) Vol. 66, No. 3, pp. 1873-8. Journal code: 2984705R. ISSN: 0008-5472.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200603
ENTRY DATE: Entered STN: 3 Feb 2006
Last Updated on STN: 22 Mar 2006
Entered Medline: 21 Mar 2006

L9 ANSWER 6 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:714309 SCISEARCH
THE GENUINE ARTICLE: 062JN
TITLE: Regulation of the energy sensor AMP-activated protein kinase by antigen receptor and Ca²⁺ in T lymphocytes
AUTHOR: Tamas P; Hawley S A; Clarke R G; Mustard K J; Green K; Hardie D G; Cantrell D A (Reprint)
CORPORATE SOURCE: Univ Dundee, Sch Life Sci, Div Cell Biol & Immunol, Dundee DD1 5EH, Scotland (Reprint); Univ Dundee, Sch Life Sci, Div Mol Physiol, Dundee DD1 5EH, Scotland
d.a.cantrell@dundee.ac.uk
COUNTRY OF AUTHOR: Scotland
SOURCE: JOURNAL OF EXPERIMENTAL MEDICINE, (10 JUL 2006) Vol. 203, No. 7, pp. 1665-1670.
ISSN: 0022-1007.
PUBLISHER: ROCKEFELLER UNIV PRESS, 1114 FIRST AVE, 4TH FL, NEW YORK, NY 10021 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 30
ENTRY DATE: Entered STN: 3 Aug 2006
Last Updated on STN: 31 Aug 2006
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 7 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:550465 BIOSIS
DOCUMENT NUMBER: PREV200600538716
TITLE: NDPK-A (but not NDPK-B) and AMPK alpha 1 (but not AMPK alpha 2) bind the cystic fibrosis transmembrane conductance regulator in epithelial cell membranes.
AUTHOR(S): Crawford, Russell M.; Treharne, Kate J.; Best, O. Giles; Riemen, Claudia E.; Muimo, Richmond; Gruenert, Dieter C.; Arnaud-Dabernat, Sandrine; Daniel, Jean-Yves; Mehta, Anil [Reprint Author]
CORPORATE SOURCE: Univ Dundee, Ninewells Hosp and Med Sch, Dept Maternal and Child Hlth Sci, Dundee DD1 9SY, UK
a.mehta@dundee.ac.uk
SOURCE: Cellular Signalling, (OCT 2006) Vol. 18, No. 10, pp. 1595-1603.
CODEN: CESIEY. ISSN: 0898-6568.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 18 Oct 2006
Last Updated on STN: 18 Oct 2006

L9 ANSWER 8 OF 112 MEDLINE on STN DUPLICATE 2

ACCESSION NUMBER: 2006256883 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16434556
TITLE: Exercise training decreases the concentration of malonyl-CoA and increases the expression and activity of malonyl-CoA decarboxylase in human muscle.
AUTHOR: Kuhl Jeanette E; Ruderman Neil B; Musi Nicolas; Goodyear Laurie J; Patti Mary Elizabeth; Crunkhorn Sarah; Dronamraju Deepti; Thorell Anders; Nygren Jonas; Ljungkvist Olle;

Degerblad Marie; Stahle Agneta; Brismar Torkel B; Andersen
 Kirstine L; Saha Asish K; Efendic Suad; Bavenholm Peter N
 CORPORATE SOURCE: Dept. of Molecular Medicine and Surgery, Karolinska
 Institutet, S-171 76 Stockholm, Sweden..
 jeanette.kuhl@molmed.ki.se
 CONTRACT NUMBER: AR-42238 (NIAMS)
 AR-45670 (NIAMS)
 DK-19514 (NIDDK)
 DK-49147 (NIDDK)
 DK-62948 (NIDDK)
 SOURCE: American journal of physiology. Endocrinology and
 metabolism, (2006 Jun) Vol. 290, No. 6, pp. E1296-303.
 Electronic Publication: 2006-01-24.
 Journal code: 100901226. ISSN: 0193-1849.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: (CLINICAL TRIAL)
 Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200607
 ENTRY DATE: Entered STN: 10 May 2006
 Last Updated on STN: 14 Jul 2006
 Entered Medline: 13 Jul 2006

L9 ANSWER 9 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:481969 SCISEARCH
 THE GENUINE ARTICLE: 039WV
 TITLE: Reduced plasma adiponectin concentrations may contribute
 to impaired insulin activation of glycogen synthase in
 skeletal muscle of patients with type 2 diabetes
 AUTHOR: Hojlund K (Reprint); Frystyk J; Levin K; Flyvbjerg A;
 Wojtaszewski J F P; Beck-Nielsen H
 CORPORATE SOURCE: Odense Univ Hosp, Dept Endocrinol, Diabet Res Ctr, DK-5000
 Odense, Denmark (Reprint); Aarhus Univ Hosp, Med Res Labs,
 DK-8000 Aarhus, Denmark; Univ Copenhagen, Inst Exercise &
 Sport Sci, Copenhagen Muscle Res Ctr, Copenhagen, Denmark
 k.hojlund@dadlnet.dk
 COUNTRY OF AUTHOR: Denmark
 SOURCE: DIABETOLOGIA, (JUN 2006) Vol. 49, No. 6, pp. 1283-1291.
 ISSN: 0012-186X.
 PUBLISHER: SPRINGER, 233 SPRING STREET, NEW YORK, NY 10013 USA.
 DOCUMENT TYPE: Article; Journal
 LANGUAGE: English
 REFERENCE COUNT: 50
 ENTRY DATE: Entered STN: 25 May 2006
 Last Updated on STN: 25 May 2006
 ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 10 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:439592 SCISEARCH
 THE GENUINE ARTICLE: 036EJ
 TITLE: LKB1-AMPK signaling in muscle from obese
 insulin-resistant Zucker rats and effects of training
 AUTHOR: Sriwijitkamol A; Ivy J L; Christ-Roberts C; DeFronzo R A;
 Mandarino L J; Musi N (Reprint)
 CORPORATE SOURCE: 701 S Zarzamora, MS 10-5, San Antonio, TX 78207 USA
 (Reprint); Univ Texas, Hlth Sci Ctr, Diabet Div, San
 Antonio, TX USA; Texas Diabet Inst, San Antonio, TX USA;
 Univ Texas, Dept Kinesiol & Hlth Educ, Exercise Physiol &
 Metab Lab, Austin, TX 78712 USA
 Nicolas.musi@uhs-sa.com
 COUNTRY OF AUTHOR: USA

SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY-ENDOCRINOLOGY AND
METABOLISM, (MAY 2006) Vol. 290, No. 5, pp. E925-E932.
ISSN: 0193-1849.
PUBLISHER: AMER PHYSIOLOGICAL SOC, 9650 ROCKVILLE PIKE, BETHESDA, MD
20814 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 64
ENTRY DATE: Entered STN: 11 May 2006
Last Updated on STN: 11 May 2006
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 11 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN

ACCESSION NUMBER: 2006:499413 BIOSIS
DOCUMENT NUMBER: PREV200600505733
TITLE: Gene expression in human liver tissue in NAFLD:
Changes associated with pioglitazone treatment on hepatic
metabolism.
AUTHOR(S): Friis-Liby, Ingalill K.; Gogg, Silvia; Bjornsson, Einar;
Aldenberg, Frank; Smith, Ulf
SOURCE: Gastroenterology, (APR 2006) Vol. 130, No. 4, Suppl. 2, pp.
A762.
Meeting Info.: Digestive Disease Week Meeting/107th Annual
Meeting of the American-Gastroenterological-Association.
Los Angeles, CA, USA. May 19 -24, 2006. Amer Gastroenterol
Assoc Inst.
CODEN: GASTAB. ISSN: 0016-5085.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 4 Oct 2006
Last Updated on STN: 4 Oct 2006

L9 ANSWER 12 OF 112 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2006:315017 HCAPLUS
DOCUMENT NUMBER: 144:460635
TITLE: Cytokine secretion by human adipocytes is
differentially regulated by adiponectin, AICAR, and
troglitazone
AUTHOR(S): Sell, Henrike; Dietze-Schroeder, Daniela; Eckardt,
Kristin; Eckel, Juergen
CORPORATE SOURCE: Institute of Clinical Biochemistry and
Pathobiochemistry, German Diabetes Center,
Duesseldorf, Germany
SOURCE: Biochemical and Biophysical Research Communications
(2006), 343(3), 700-706
CODEN: BBRCA9; ISSN: 0006-291X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 112 MEDLINE on STN

ACCESSION NUMBER: 2006118397 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16505118
TITLE: Rosiglitazone suppresses human lung carcinoma
cell growth through PPARGgamma-dependent and
PPARGgamma-independent signal pathways.
AUTHOR: Han ShouWei; Roman Jesse
CORPORATE SOURCE: Division of Pulmonary, Allergy, and Critical Care Medicine,
Emory University School of Medicine, Whitehead Bioresearch
Building, 615 Michael Street, Suite 205-M, Atlanta, GA

SOURCE: 30322, USA.. shan2@emory.edu
 Molecular cancer therapeutics, (2006 Feb) Vol. 5, No. 2,
 pp. 430-7.
 Journal code: 101132535. ISSN: 1535-7163.

PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200605
 ENTRY DATE: Entered STN: 1 Mar 2006
 Last Updated on STN: 5 May 2006
 Entered Medline: 4 May 2006

L9 ANSWER 14 OF 112 MEDLINE on STN DUPLICATE 3
 ACCESSION NUMBER: 2006214886 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16620308
 TITLE: Exercise and skeletal muscle glucose transporter 4
 expression: molecular mechanisms.
 AUTHOR: McGee Sean L; Hargreaves Mark
 CORPORATE SOURCE: Department of Physiology, University of Melbourne,
 Victoria, Australia.
 SOURCE: Clinical and experimental pharmacology & physiology, (2006
 Apr) Vol. 33, No. 4, pp. 395-9. Ref: 47
 Journal code: 0425076. ISSN: 0305-1870.

PUB. COUNTRY: Australia
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200605
 ENTRY DATE: Entered STN: 20 Apr 2006
 Last Updated on STN: 18 May 2006
 Entered Medline: 17 May 2006

L9 ANSWER 15 OF 112 MEDLINE on STN
 ACCESSION NUMBER: 2006566638 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16939655
 TITLE: Mining frequent patterns for AMP-activated protein kinase
 regulation on skeletal muscle.
 AUTHOR: Chen Qingfeng; Chen Yi-Ping Phoebe
 CORPORATE SOURCE: School of Engineering & Information Technology, Deakin
 University, Melbourne, Australia.. qifengch@deakin.edu.au
 SOURCE: BMC bioinformatics [electronic resource], (2006) Vol. 7,
 pp. 394. Electronic Publication: 2006-08-30.
 Journal code: 100965194. E-ISSN: 1471-2105.

PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200610
 ENTRY DATE: Entered STN: 26 Sep 2006
 Last Updated on STN: 6 Oct 2006
 Entered Medline: 5 Oct 2006

L9 ANSWER 16 OF 112 MEDLINE on STN DUPLICATE 4
 ACCESSION NUMBER: 2006241802 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16597407
 TITLE: [Regulation of energy metabolism by AMPK
 : a novel therapeutic approach for the treatment of
 metabolic and cardiovascular diseases].
 Regulation du metabolisme energetique par l'
 AMPK: une nouvelle voie therapeutique pour le
 traitement des maladies metaboliques et
 cardiaques.

AUTHOR: Foretz Marc; Taleux Nellie; Guigas Bruno; Horman Sandrine; Beauloye Christophe; Andreelli Fabrizio; Bertrand Luc; Viollet Benoit

CORPORATE SOURCE: Inserm U567, CNRS URM8104, Universite Paris5, Institut Cochin, Departement Endocrinologie, Metabolisme et Cancer, 24, rue du Faubourg Saint-Jacques, 75014 Paris, France.

SOURCE: Medecine sciences : M/S, (2006 Apr) Vol. 22, No. 4, pp. 381-8. Ref: 43
Journal code: 8710980. ISSN: 0767-0974.

PUB. COUNTRY: France

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)

LANGUAGE: French

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200607

ENTRY DATE: Entered STN: 3 May 2006
Last Updated on STN: 26 Jul 2006
Entered Medline: 25 Jul 2006

L9 ANSWER 17 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN

ACCESSION NUMBER: 2006160851 EMBASE

TITLE: Adiponectin - A key adipokine in the metabolic syndrome.

AUTHOR: Whitehead J.P.; Richards A.A.; Hickman I.J.; Macdonald G.A.; Prins J.B.

CORPORATE SOURCE: Dr. J.P. Whitehead, Centre for Diabetes and Endocrine Research, University of Queensland, Princess Alexandra Hospital, Ipswich Road, Brisbane, QLD 4102, Australia. jwhitehead@cder.soms.uq.edu.au

SOURCE: Diabetes, Obesity and Metabolism, (2006) Vol. 8, No. 3, pp. 264-280. .
Refs: 113
ISSN: 1462-8902 E-ISSN: 1463-1326 CODEN: DOMEF6

COUNTRY: United Kingdom

DOCUMENT TYPE: Journal; General Review

FILE SEGMENT: 005 General Pathology and Pathological Anatomy
006 Internal Medicine
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
038 Adverse Reactions Titles

LANGUAGE: English

SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 14 Apr 2006
Last Updated on STN: 14 Apr 2006

L9 ANSWER 18 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2006:716054 SCISEARCH

THE GENUINE ARTICLE: 063IG

TITLE: Fatty acids stimulate AMP-activated protein kinase and enhance fatty acid oxidation in L6 myotubes

AUTHOR: Watt M J (Reprint); Steinberg G R; Chen Z P; Kemp B E; Febbraio M A

CORPORATE SOURCE: St Vincents Inst Med Res, 9 Princes St, Fitzroy, Vic 3065, Australia (Reprint); St Vincents Inst Med Res, Fitzroy, Vic 3065, Australia; Univ Melbourne, Dept Med, Fitzroy, Vic 3065, Australia; RMIT Univ, Sch Med Sci, Cellular & Mol Metab Lab, Bundoora, Vic 3083, Australia; CSIRO, Mol Hlth Technol, Parkville, Vic 3052, Australia mwatt@svi.edu.au

COUNTRY OF AUTHOR: Australia

SOURCE: JOURNAL OF PHYSIOLOGY-LONDON, (1 JUL 2006) Vol. 574, No.

1, pp. 139-147.
ISSN: 0022-3751.
PUBLISHER: BLACKWELL PUBLISHING, 9600 GARSINGTON RD, OXFORD OX4 2DQ,
OXON, ENGLAND.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 38
ENTRY DATE: Entered STN: 3 Aug 2006
Last Updated on STN: 31 Aug 2006

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 19 OF 112 MEDLINE on STN DUPLICATE 5
ACCESSION NUMBER: 2005691728 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16380484
TITLE: Activation of AMP-activated protein kinase reduces
hyperglycemia-induced mitochondrial reactive oxygen species
production and promotes mitochondrial biogenesis in
human umbilical vein endothelial cells.
AUTHOR: Kukidome Daisuke; Nishikawa Takeshi; Sonoda Kazuhiro; Imoto
Koujiro; Fujisawa Kazuo; Yano Miyuki; Motoshima Hiroyuki;
Taguchi Tetsuya; Matsumura Takeshi; Araki Eiichi
CORPORATE SOURCE: Department of Metabolic Medicine, Faculty of Medical and
Pharmaceutical Sciences, Kumamoto University, 1-1-1 Honjo,
Kumamoto 860-8556, Japan.
SOURCE: Diabetes, (2006 Jan) Vol. 55, No. 1, pp. 120-7.
Journal code: 0372763. ISSN: 0012-1797.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200603
ENTRY DATE: Entered STN: 29 Dec 2005
Last Updated on STN: 30 Mar 2006
Entered Medline: 29 Mar 2006

L9 ANSWER 20 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
reserved on STN DUPLICATE 6
ACCESSION NUMBER: 2006345776 EMBASE
TITLE: Fitness or fatness: The debate continues for AMP-activated
protein kinase in heart function.
AUTHOR: Shen Q.; Du M.; Ren J.
CORPORATE SOURCE: J. Ren, Division of Pharmaceutical Sciences, Center for
Cardiovascular Research and Alternative Medicine,
University of Wyoming, Laramie, WY 82071, United States.
jren@uwyo.edu
SOURCE: Current Cardiology Reviews, (2006) Vol. 2, No. 2, pp.
117-123. .
Refs: 62
ISSN: 1573-3947
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 005 General Pathology and Pathological Anatomy
018 Cardiovascular Diseases and Cardiovascular Surgery
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 8 Aug 2006
Last Updated on STN: 8 Aug 2006

L9 ANSWER 21 OF 112 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2006:698201 HCAPLUS
DOCUMENT NUMBER: 145:96869
TITLE: Role of adiponectin in human skeletal muscle
bioenergetics

AUTHOR(S): Civitarese, Anthony E.; Ukropcova, Barbara; Carling, Stacy; Hulver, Matthew; DeFronzo, Ralph A.; Mandarino, Lawrence; Ravussin, Eric; Smith, Steve R.
 CORPORATE SOURCE: Pennington Biomedical Research Center, Baton Rouge, LA, 70808, USA
 SOURCE: Cell Metabolism (2006), 4(1), 75-87
 CODEN: CMEEB5; ISSN: 1550-4131
 PUBLISHER: Cell Press
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 REFERENCE COUNT: 81 THERE ARE 81 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 22 OF 112 MEDLINE on STN DUPLICATE 7
 ACCESSION NUMBER: 2006392230 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16709637
 TITLE: The role of AMP-activated protein kinase in mitochondrial biogenesis.
 AUTHOR: Reznick Richard M; Shulman Gerald I
 CORPORATE SOURCE: Department of Internal Medicine, Yale University School of Medicine, Howard Hughes Medical Institute, New Haven, CT, USA.
 CONTRACT NUMBER: P01 DK-068229 (NIDDK)
 P30 DK-45735 (NIDDK)
 R01 DK-40936 (NIDDK)
 T32G-07499
 U24 DK-59635 (NIDDK)
 SOURCE: The Journal of physiology, (2006 Jul 1) Vol. 574, No. Pt 1, pp. 33-9. Electronic Publication: 2006-05-18. Ref: 48
 Journal code: 0266262. ISSN: 0022-3751.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200609
 ENTRY DATE: Entered STN: 1 Jul 2006
 Last Updated on STN: 6 Sep 2006
 Entered Medline: 5 Sep 2006

L9 ANSWER 23 OF 112 MEDLINE on STN DUPLICATE 8
 ACCESSION NUMBER: 2006392213 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16644800
 TITLE: AMP-activated protein kinase--development of the energy sensor concept.
 AUTHOR: Hardie D Grahame; Hawley Simon A; Scott John W
 CORPORATE SOURCE: Division of Molecular Physiology, School of Life Sciences, University of Dundee, MSI/WTB/CIR Complex, Dow Street, Dundee DD1 5EH, Scotland, UK.. d.g.hardie@dundee.ac.uk
 SOURCE: The Journal of physiology, (2006 Jul 1) Vol. 574, No. Pt 1, pp. 7-15. Electronic Publication: 2006-04-27. Ref: 93
 Journal code: 0266262. ISSN: 0022-3751.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200609
 ENTRY DATE: Entered STN: 1 Jul 2006
 Last Updated on STN: 6 Sep 2006
 Entered Medline: 5 Sep 2006

L9 ANSWER 24 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 9

ACCESSION NUMBER: 2006218680 EMBASE
 TITLE: Characterization of the role of .gamma.2 R531G mutation in AMP-activated protein kinase in cardiac hypertrophy and Wolff-Parkinson-White syndrome.
 AUTHOR: Davies J.K.; Wells D.J.; Liu K.; Whitrow H.R.; Daniel T.D.; Grignani R.; Lygate C.A.; Schneider J.E.; Noel G.; Watkins H.; Carling D.
 CORPORATE SOURCE: D. Carling, Cellular Stress Group, Hammersmith Campus, Imperial College London, DuCane Rd., London W12 ONN, United Kingdom. dcarling@imperial.ac.uk
 SOURCE: American Journal of Physiology - Heart and Circulatory Physiology, (2006) Vol. 290, No. 5, pp. H1942-H1951. . Refs: 36
 ISSN: 0363-6135 E-ISSN: 1522-1539 CODEN: AJPPDI
 COUNTRY: United States
 DOCUMENT TYPE: Journal; Article
 FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
 029 Clinical Biochemistry
 LANGUAGE: English
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 25 May 2006
 Last Updated on STN: 25 May 2006

L9 ANSWER 25 OF 112 MEDLINE on STN DUPLICATE 10
 ACCESSION NUMBER: 2005665554 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16326804
 TITLE: Fat storage in adipocytes requires inactivation of leptin's paracrine activity: implications for treatment of human obesity.
 AUTHOR: Wang May-Yun; Orci Lelio; Ravazzola Mariella; Unger Roger H
 CORPORATE SOURCE: Gifford Laboratories, Touchstone Center for Diabetes Research and Department of Internal Medicine, University of Texas Southwestern Medical Center, Dallas, 75390-8854, USA.
 SOURCE: Proceedings of the National Academy of Sciences of the United States of America, (2005 Dec 13) Vol. 102, No. 50, pp. 18011-6. Electronic Publication: 2005-12-02. Journal code: 7505876. ISSN: 0027-8424.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200605
 ENTRY DATE: Entered STN: 18 Dec 2005
 Last Updated on STN: 31 May 2006
 Entered Medline: 30 May 2006

L9 ANSWER 26 OF 112 MEDLINE on STN DUPLICATE 11
 ACCESSION NUMBER: 2005232494 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 15753079
 TITLE: Epithelial sodium channel inhibition by AMP-activated protein kinase in oocytes and polarized renal epithelial cells.
 AUTHOR: Carattino Marcelo D; Edinger Robert S; Grieser Heather J; Wise Rosalee; Neumann Dietbert; Schlattner Uwe; Johnson John P; Kleyman Thomas R; Hallows Kenneth R
 CORPORATE SOURCE: Renal-Electrolyte Division, Department of Medicine, University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania 15261, USA.
 CONTRACT NUMBER: DK057718 (NIDDK)
 K08 DK059477 (NIDDK)
 R01 DK047874 (NIDDK)
 R01 DK054354 (NIDDK)
 R03 DK068390 (NIDDK)
 SOURCE: The Journal of biological chemistry, (2005 May 6) Vol. 280,

No. 18, pp. 17608-16. Electronic Publication: 2005-03-07.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200509
ENTRY DATE: Entered STN: 4 May 2005
Last Updated on STN: 3 Sep 2005
Entered Medline: 2 Sep 2005

L9 ANSWER 27 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2005173262 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15695819
TITLE: AMP-activated protein kinase beta subunit tethers alpha and
gamma subunits via its C-terminal sequence
(186-270).
AUTHOR: Iseli Tristan J; Walter Mark; van Denderen Bryce J W;
Katsis Frosa; Witters Lee A; Kemp Bruce E; Michell Belinda
J; Stapleton David
CORPORATE SOURCE: St. Vincent's Institute, University of Melbourne, Victoria,
Australia.
CONTRACT NUMBER: DK35712 (NIDDK)
SOURCE: The Journal of biological chemistry, (2005 Apr 8) Vol. 280,
No. 14, pp. 13395-400. Electronic Publication: 2005-01-28.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200506
ENTRY DATE: Entered STN: 5 Apr 2005
Last Updated on STN: 22 Jun 2005
Entered Medline: 21 Jun 2005

L9 ANSWER 28 OF 112 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1260001 HCAPLUS
DOCUMENT NUMBER: 144:165134
TITLE: The Octamer Binding Transcription Factor Oct-1 Is a
Stress Sensor
AUTHOR(S): Tantin, Dean; Schild-Poulter, Caroline; Wang,
Victoria; Hache, Robert J. G.; Sharp, Phillip A.
CORPORATE SOURCE: Center for Cancer Research and Department of Biology,
Massachusetts Institute of Technology, Cambridge, MA,
USA
SOURCE: Cancer Research (2005), 65(23), 10750-10758
CODEN: CNREA8; ISSN: 0008-5472
PUBLISHER: American Association for Cancer Research
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 29 OF 112 MEDLINE on STN DUPLICATE 12
ACCESSION NUMBER: 2005625557 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16306365
TITLE: Changes in exercise-induced gene expression in
5'-AMP-activated protein kinase gamma3-null and gamma3
R225Q transgenic mice.
AUTHOR: Barnes Brian R; Long Yun Chau; Steiler Tatiana L; Leng
Ying; Galuska Dana; Wojtaszewski Jorgen F P; Andersson
Leif; Zierath Juleen R
CORPORATE SOURCE: Department of Physiology and Pharmacology, Karolinska
Institutet, von Eulers vag 4, 4th Floor, S-171 77

SOURCE: Stockholm, Sweden.
 Diabetes, (2005 Dec) Vol. 54, No. 12, pp. 3484-9.
 Journal code: 0372763. ISSN: 0012-1797.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
 ENTRY MONTH: 200609
 ENTRY DATE: Entered STN: 29 Nov 2005
 Last Updated on STN: 12 Sep 2006
 Entered Medline: 11 Sep 2006

L9 ANSWER 30 OF 112 MEDLINE on STN DUPLICATE 13
 ACCESSION NUMBER: 2005606380 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16275868
 TITLE: Increased alpha2 subunit-associated AMPK activity
 and PRKAG2 cardiomyopathy.
 AUTHOR: Ahmad Ferhaan; Arad Michael; Musi Nicolas; He Huamei; Wolf
 Cordula; Branco Dorothy; Perez-Atayde Antonio R; Stapleton
 David; Bali Deeksha; Xing Yanqiu; Tian Rong; Goodyear
 Laurie J; Berul Charles I; Ingwall Joanne S; Seidman
 Christine E; Seidman J G
 CORPORATE SOURCE: Department of Genetics, Harvard Medical School, Howard
 Hughes Medical Institute, Boston, MA, USA.
 CONTRACT NUMBER: HL 52320 (NHLBI)
 HL 63985 (NHLBI)
 HL 67970 (NHLBI)
 SOURCE: Circulation, (2005 Nov 15) Vol. 112, No. 20, pp. 3140-8.
 Electronic Publication: 2005-11-07.
 Journal code: 0147763. E-ISSN: 1524-4539.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
 ENTRY MONTH: 200603
 ENTRY DATE: Entered STN: 16 Nov 2005
 Last Updated on STN: 8 Mar 2006
 Entered Medline: 7 Mar 2006

L9 ANSWER 31 OF 112 MEDLINE on STN DUPLICATE 14
 ACCESSION NUMBER: 2005626320 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16051671
 TITLE: Hepatocyte nuclear factor-4alpha regulates the
 human apolipoprotein AV gene: identification of a
 novel response element and involvement in the control by
 peroxisome proliferator-activated receptor-gamma
 coactivator-1alpha, AMP-activated protein kinase, and
 mitogen-activated protein kinase pathway.
 AUTHOR: Prieur Xavier; Schaap Frank G; Coste Herve; Rodriguez Joan
 C
 CORPORATE SOURCE: GlaxoSmithKline, 25 avenue du Quebec, 91951 Les Ulis cedex,
 France.
 SOURCE: Molecular endocrinology (Baltimore, Md.), (2005 Dec) Vol.
 19, No. 12, pp. 3107-25. Electronic Publication:
 2005-07-28.
 Journal code: 8801431. ISSN: 0888-8809.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200602
 ENTRY DATE: Entered STN: 29 Nov 2005
 Last Updated on STN: 28 Feb 2006
 Entered Medline: 23 Feb 2006

L9 ANSWER 32 OF 112 MEDLINE on STN
 ACCESSION NUMBER: 2005604270 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16237515
 TITLE: Role of AMP-activated protein kinase in the coordinated expression of genes controlling glucose and lipid metabolism in mouse white skeletal muscle.
 AUTHOR: Long Y C; Barnes B R; Mahlapuu M; Steiler T L; Martinsson S; Leng Y; Wallberg-Henriksson H; Andersson L; Zierath J R
 CORPORATE SOURCE: Department of Surgical Sciences, Section for Integrative Physiology, Karolinska Institute, Stockholm, Sweden.
 SOURCE: Diabetologia, (2005 Nov) Vol. 48, No. 11, pp. 2354-64.
 Electronic Publication: 2005-10-20.
 Journal code: 0006777. ISSN: 0012-186X.
 PUB. COUNTRY: Germany: Germany, Federal Republic of
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200601
 ENTRY DATE: Entered STN: 15 Nov 2005
 Last Updated on STN: 27 Jan 2006
 Entered Medline: 26 Jan 2006

L9 ANSWER 33 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
 ACCESSION NUMBER: 2005:536208 BIOSIS
 DOCUMENT NUMBER: PREV200510321712
 TITLE: The AMP-activated protein kinase cascade: regulating energy balance at the single cell and whole body levels.
 AUTHOR(S): Hardie, David Grahame [Reprint Author]
 CORPORATE SOURCE: Univ Dundee, David Grahame Hardie Sch Life Sci, Wellcome Trust Bioctr, Dundee DD1 5EH, UK
 SOURCE: FASEB Journal, (MAR 7 2005) Vol. 19, No. 5, Suppl. S, Part 2, pp. A1721-A1722.
 Meeting Info.: Experimental Biology 2005 Meeting/35th International Congress of Physiological Sciences. San Diego, CA, USA. March 31 -April 06, 2005. Amer Assoc Anatomists; Amer Assoc Immunologists; Amer Physiol Soc; Amer Soc Biochem & Mol Biol; Amer Soc Investigat Pathol; Amer Soc Nutr Sci; Amer Soc Pharmacol & Expt Therapeut; Int Union Physiol Sci.
 CODEN: FAJOEC. ISSN: 0892-6638.
 DOCUMENT TYPE: Conference; (Meeting)
 Conference; Abstract; (Meeting Abstract)
 LANGUAGE: English
 ENTRY DATE: Entered STN: 1 Dec 2005
 Last Updated on STN: 1 Dec 2005

L9 ANSWER 34 OF 112 MEDLINE on STN
 ACCESSION NUMBER: 2005659034 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 16308421
 TITLE: The kinase LKB1 mediates glucose homeostasis in liver and therapeutic effects of metformin.
 AUTHOR: Shaw Reuben J; Lamia Katja A; Vasquez Debbie; Koo Seung-Hoi; Bardeesy Nabeel; Depinho Ronald A; Montminy Marc; Cantley Lewis C
 CORPORATE SOURCE: Department of Systems Biology, Harvard Medical School, Boston, MA 02115, USA.. shaw@salk.edu
 CONTRACT NUMBER: CA84313 (NCI)
 GM056203 (NIGMS)
 GM37828 (NIGMS)
 SOURCE: Science, (2005 Dec 9) Vol. 310, No. 5754, pp. 1642-6.
 Electronic Publication: 2005-11-24.
 Journal code: 0404511. E-ISSN: 1095-9203.

PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200512
ENTRY DATE: Entered STN: 18 Dec 2005
Last Updated on STN: 21 Dec 2005
Entered Medline: 19 Dec 2005

L9 ANSWER 35 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN

ACCESSION NUMBER: 2006:105259 BIOSIS
DOCUMENT NUMBER: PREV200600101006
TITLE: Glucose ingestion during exercise blunts exercise-induced
gene expression of skeletal muscle fat oxidative genes.
AUTHOR(S): Civitarese, Anthony E.; Hesselink, Matthijs K. C.; Russell,
Aaron P.; Ravussin, Eric [Reprint Author]; Schrauwen,
Patrick
CORPORATE SOURCE: Pennington Biomed Res Ctr, Dept Human Physiol, 6400 Perkins
Rd, Baton Rouge, LA 70808 USA
RavusseE@pbrc.edu
SOURCE: American Journal of Physiology - Endocrinology and
Metabolism, (DEC 2005) Vol. 289, No. 6, pp. E1023-E1029.
ISSN: 0193-1849.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 8 Feb 2006
Last Updated on STN: 8 Feb 2006

L9 ANSWER 36 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN

ACCESSION NUMBER: 2006:16444 BIOSIS
DOCUMENT NUMBER: PREV200600019477
TITLE: Mutation of the gamma 3 regulatory subunit of
AMPK impairs phenformin-and AICAR-stimulated
glucose uptake in skeletal muscle.
AUTHOR(S): Yu, Haiyan [Reprint Author]; Hirshman, Michael F.; Fujii,
Nobuharu; Pomerleau, Jason M.; Peter, Lauren E.; Goodyear,
Laurie J.
SOURCE: Diabetes, (2005) Vol. 54, No. Suppl. 1, pp. A643.
Meeting Info.: 65th Annual Meeting of the
American-Diabetes-Association. San Diego, CA, USA. June 10
-14, 2005. Amer Diabet Assoc.
CODEN: DIAEAZ. ISSN: 0012-1797.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Dec 2005
Last Updated on STN: 21 Dec 2005

L9 ANSWER 37 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
reserved on STN DUPLICATE 15

ACCESSION NUMBER: 2005193949 EMBASE
TITLE: 5' AMP activated protein kinase expression in human
skeletal muscle: Effects of strength training and type 2
diabetes.
AUTHOR: Wojtaszewski J.F.P.; Birk J.B.; Frosig C.; Holten M.;
Pilegaard H.; Dela F.
CORPORATE SOURCE: J.F.P. Wojtaszewski, The Institute of Exercise and Sport
Sciences, The Copenhagen Muscle Research Centre, University
of Copenhagen, 13 Universitetsparken, 2100-Copenhagen,
Denmark. jwojtaszewski@aki.ku.dk
SOURCE: Journal of Physiology, (15 Apr 2005) Vol. 564, No. 2, pp.
563-573. .

Refs: 49
ISSN: 0022-3751 CODEN: JPHYA7
United Kingdom
Journal; Article
002 Physiology
029 Clinical Biochemistry
English
English
Entered STN: 12 May 2005
Last Updated on STN: 12 May 2005

L9 ANSWER 38 OF 112 MEDLINE on STN DUPLICATE 16
ACCESSION NUMBER: 2005256150 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15897298
TITLE: Adiponectin and adiponectin receptors.
AUTHOR: Kadowaki Takashi; Yamauchi Toshimasa
CORPORATE SOURCE: Department of Metabolic Diseases, Graduate School of
Medicine, University of Tokyo, 7-3-1 Hongo, Bunkyo-ku,
Tokyo 113-8655, Japan.. kadowaki-3im@h.u-tokyo.ac.jp
SOURCE: Endocrine reviews, (2005 May) Vol. 26, No. 3, pp. 439-51.
Ref: 101
Journal code: 8006258. ISSN: 0163-769X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200508
ENTRY DATE: Entered STN: 18 May 2005
Last Updated on STN: 3 Aug 2005
Entered Medline: 2 Aug 2005

L9 ANSWER 39 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 17
ACCESSION NUMBER: 2005495880 EMBASE
TITLE: Glucose and lipid metabolism in relation to novel
polymorphisms in the 5'-AMP-activated protein kinase .
gamma.2 gene in Chinese.
AUTHOR: Xu M.; Li X.; Wang J.-G.; Du P.; Hong J.; Gu W.; Zhang Y.;
Ning G.
CORPORATE SOURCE: G. Ning, Department of Endocrine and Metabolic Diseases,
Ruijin Hospital, Shanghai Second Medical University,
Shanghai, China. guangning@medmail.com.cn
SOURCE: Molecular Genetics and Metabolism, (2005) Vol. 86, No. 3,
pp. 372-378. .
Refs: 32
ISSN: 1096-7192 CODEN: MGMEFF
PUBLISHER IDENT.: S 1096-7192(05)00211-8
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 003 Endocrinology
022 Human Genetics
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 28 Nov 2005
Last Updated on STN: 28 Nov 2005

L9 ANSWER 40 OF 112 MEDLINE on STN DUPLICATE 18
ACCESSION NUMBER: 2005253345 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15892653
TITLE: Role of AMP--activated protein kinase in the control of
glucose homeostasis.
AUTHOR: Barnes B R; Zierath J R

CORPORATE SOURCE: Department of Physiology and Pharmacology, Karolinska Institutet, Stockholm, Sweden.

SOURCE: Current molecular medicine, (2005 May) Vol. 5, No. 3, pp. 341-8. Ref: 79
Journal code: 101093076. ISSN: 1566-5240.

PUB. COUNTRY: Netherlands

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200508

ENTRY DATE: Entered STN: 17 May 2005
Last Updated on STN: 9 Aug 2005
Entered Medline: 8 Aug 2005

L9 ANSWER 41 OF 112 MEDLINE on STN DUPLICATE 19

ACCESSION NUMBER: 2005442258 MEDLINE

DOCUMENT NUMBER: PubMed ID: 16051890

TITLE: N488I mutation of the gamma2-subunit results in bidirectional changes in AMP-activated protein kinase activity.

AUTHOR: Zou Liqun; Shen Mei; Arad Michael; He Huamei; Lofgren Bo; Ingwall Joanne S; Seidman Christine E; Seidman Jon G; Tian Rong

CORPORATE SOURCE: NMR Laboratory for Physiological Chemistry, Brigham and Women's Hospital, Boston, MA, USA.

CONTRACT NUMBER: HL 63985 (NHLBI)
HL52320 (NHLBI)
HL59247 (NHLBI)
HL67970 (NHLBI)

SOURCE: Circulation research, (2005 Aug 19) Vol. 97, No. 4, pp. 323-8. Electronic Publication: 2005-07-28.
Journal code: 0047103. E-ISSN: 1524-4571.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200510

ENTRY DATE: Entered STN: 20 Aug 2005
Last Updated on STN: 29 Oct 2005
Entered Medline: 28 Oct 2005

L9 ANSWER 42 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:519270 BIOSIS

DOCUMENT NUMBER: PREV200510297184

TITLE: Effects of PPAR-alpha and PPAR-gamma agonists on muscle AMPK activity and insulin resistance in patients with type 2 diabetes mellitus.

AUTHOR(S): Bajaj, M. [Reprint Author]; Suraamornkul, S.; Sriwijilkamol, A.; Musi, N.; DeFronzo, R.

CORPORATE SOURCE: Univ Texas, Hlth Sci Ctr, Dept Med, Diabet Div, San Antonio, TX USA

SOURCE: Diabetologia, (2005) Vol. 48, No. Suppl. 1, pp. A280. Meeting Info.: 41st Annual Meeting of the European-Association-for-the-Study-of-Diabetes. Athens, GREECE. September 10 -15, 2005. European Assoc Study Diabet.
CODEN: DBTG AJ. ISSN: 0012-186X.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)

LANGUAGE: English

ENTRY DATE: Entered STN: 23 Nov 2005
Last Updated on STN: 23 Nov 2005

L9 ANSWER 43 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 20

ACCESSION NUMBER: 2005189256 EMBASE
TITLE: Characterization of the bovine ampk.gamma .1 gene.
AUTHOR: Benkel B.; Kollers S.; Fries R.; Sazanov A.; Yoshida E.; Valle E.; Davoren J.; Hickey D.
CORPORATE SOURCE: B. Benkel, Lethbridge Research Centre, Agriculture and Agri-Food Canada, Lethbridge, Alta. T1J 4B1, Canada. benkelb@agr.gc.ca
SOURCE: Mammalian Genome, (2005) Vol. 16, No. 3, pp. 194-200. . Refs: 26
ISSN: 0938-8990 CODEN: MAMGEC
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 022 Human Genetics
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 26 May 2005
Last Updated on STN: 26 May 2005

L9 ANSWER 44 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:707222 SCISEARCH
THE GENUINE ARTICLE: 942QA
TITLE: Receptor-independent actions of PPAR thiazolidinedione agonists: Is mitochondrial function the key?
AUTHOR: Feinstein D L (Reprint); Spagnolo A; Akar C; Weinberg G; Murphy P; Gavriluk V; Dello Russo C
CORPORATE SOURCE: Univ Illinois, Dept Anesthesiol, 1819 W Polk St, MC519, Chicago, IL 60612 USA (Reprint); Univ Illinois, Dept Anesthesiol, Chicago, IL 60612 USA; VA Chicago Hlth Care Syst, Res & Dev, Chicago, IL 60612 USA dlfeins@uic.edu
COUNTRY OF AUTHOR: USA
SOURCE: BIOCHEMICAL PHARMACOLOGY, (15 JUL 2005) Vol. 70, No. 2, pp. 177-188.
ISSN: 0006-2952.
PUBLISHER: PERGAMON-ELSEVIER SCIENCE LTD, THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND.
DOCUMENT TYPE: General Review; Journal
LANGUAGE: English
REFERENCE COUNT: 140
ENTRY DATE: Entered STN: 22 Jul 2005
Last Updated on STN: 22 Jul 2005
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 45 OF 112 MEDLINE on STN

ACCESSION NUMBER: 2005148884 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15780593
TITLE: New roles for the LKB1-->AMPK pathway.
AUTHOR: Hardie D Grahame
CORPORATE SOURCE: Division of Molecular Physiology, Wellcome Trust Biocentre, University of Dundee, Dow Street, Dundee, DD1 4HN, Scotland, UK.. d.g.hardie@dundee.ac.uk
SOURCE: Current opinion in cell biology, (2005 Apr) Vol. 17, No. 2, pp. 167-73. Ref: 53
Journal code: 8913428. ISSN: 0955-0674.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 200508
ENTRY DATE: Entered STN: 23 Mar 2005
Last Updated on STN: 19 Aug 2005
Entered Medline: 18 Aug 2005

L9 ANSWER 46 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN
ACCESSION NUMBER: 2006:14452 BIOSIS
DOCUMENT NUMBER: PREV200600017485
TITLE: Effects of PPAR-alpha and PPAR-gamma agonists on
muscle AMPK activity in patients with type 2
diabetes (T2DM).
AUTHOR(S): Bajaj, Mandeep [Reprint Author]; Suraamornkul, Swangjit;
Sriwijilkamol, Apiradee; Musi, Nicolas; Defronzo, Ralph
SOURCE: Diabetes, (2005) Vol. 54, No. Suppl. 1, pp. A151.
Meeting Info.: 65th Annual Meeting of the
American-Diabetes-Association. San Diego, CA, USA. June 10
-14, 2005. Amer Diabet Assoc.
CODEN: DIAEAZ. ISSN: 0012-1797.
DOCUMENT TYPE: Conference; (Meeting)
Conference; (Meeting Poster)
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Dec 2005
Last Updated on STN: 21 Dec 2005

L9 ANSWER 47 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN
ACCESSION NUMBER: 2005:559946 BIOSIS
DOCUMENT NUMBER: PREV200510340262
TITLE: Expression of lipid metabolism and insulin
resistance-related genes is altered in obese children.
AUTHOR(S): Aguilera, Concepcion M. [Reprint Author]; Suarez, Antonio;
Gomez-Llorente, Carolina; Tofe, Ines; Canete, Ramon; Gil,
Angel
CORPORATE SOURCE: Univ Granada, Dept Biochem and Mol Biol, E-18071 Granada,
Spain
SOURCE: International Journal of Obesity, (SEP 2005) Vol. 29, No.
Suppl. 2, pp. S147.
Meeting Info.: International Workshop of the
European-Childhood-Obesity-Group. Vienna, AUSTRIA.
September 29 -October 01, 2005. European Childhood Obes
Grp.
CODEN: IJOBBD. ISSN: 0307-0565.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 7 Dec 2005
Last Updated on STN: 7 Dec 2005

L9 ANSWER 48 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN
ACCESSION NUMBER: 2006:14212 BIOSIS
DOCUMENT NUMBER: PREV200600017245
TITLE: Adiponectin receptors mediated regulation of mitochondrial
bioenergetics in skeletal-muscle.
AUTHOR(S): Civitarese, Anthony E. [Reprint Author]; Ukropcova,
Barbara; Hulver, Matthew; Defronzo, Ralph; Mandarino,
Lawrence; Scherer, Philipp; Ravussin, Eric; Smith, Steven
SOURCE: Diabetes, (2005) Vol. 54, No. Suppl. 1, pp. A91.
Meeting Info.: 65th Annual Meeting of the
American-Diabetes-Association. San Diego, CA, USA. June 10
-14, 2005. Amer Diabet Assoc.
CODEN: DIAEAZ. ISSN: 0012-1797.

DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 21 Dec 2005
Last Updated on STN: 21 Dec 2005

L9 ANSWER 49 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2005102981 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15733734
TITLE: Phosphorylation of PPARs: from molecular characterization
to physiological relevance.
AUTHOR: Diradourian Claire; Girard Jean; Pegorier Jean-Paul
CORPORATE SOURCE: Departement d'Endocrinologie, Institut Cochin, Inserm U567
CNRS UMR8104, Universite Paris V, 24, rue du Faubourg Saint
Jacques 75014 Paris, France.
SOURCE: Biochimie, (2005 Jan) Vol. 87, No. 1, pp. 33-8. Ref: 44
Journal code: 1264604. ISSN: 0300-9084.
PUB. COUNTRY: France
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200506
ENTRY DATE: Entered STN: 1 Mar 2005
Last Updated on STN: 29 Jun 2005
Entered Medline: 28 Jun 2005

L9 ANSWER 50 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2005004009 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15611370
TITLE: Transgenic mouse model of ventricular preexcitation and
atrioventricular reentrant tachycardia induced by an
AMP-activated protein kinase loss-of-function mutation
responsible for Wolff-Parkinson-White syndrome.
AUTHOR: Sidhu Jasvinder S; Rajawat Yadavendra S; Rami Tapan G;
Gollob Michael H; Wang Zhinong; Yuan Ruiyong; Marian A J;
DeMayo Francesco J; Weilbacher Donald; Taffet George E;
Davies Joanna K; Carling David; Khoury Dirar S; Roberts
Robert
CORPORATE SOURCE: Baylor College of Medicine, Houston, Tex, USA.
CONTRACT NUMBER: 5P50-HL54313-09 (NHLBI)
5R01-HL068768-03 (NHLBI)
5R01-HL068884-03 (NHLBI)
HL-07706-10 (NHLBI)
SOURCE: Circulation, (2005 Jan 4) Vol. 111, No. 1, pp. 21-9.
Electronic Publication: 2004-12-20.
Journal code: 0147763. E-ISSN: 1524-4539.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200506
ENTRY DATE: Entered STN: 5 Jan 2005
Last Updated on STN: 28 Jun 2005
Entered Medline: 27 Jun 2005

L9 ANSWER 51 OF 112 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2004-16760 BIOTECHDS
TITLE: Evaluating a compound, useful for treating e.g., age-related
disorder, comprises contacting a polypeptide at least 85%
identical to e.g., alpha adenosine monophosphate-activated
protein kinase (AMPK) subunit with a test compound;
drug screening using transgenic animal for disease therapy
or gene therapy

AUTHOR: APFELD J; O'CONNOR G
PATENT ASSIGNEE: ELIXIR PHARM INC
PATENT INFO: WO 2004050898 17 Jun 2004
APPLICATION INFO: WO 2003-US38628 4 Dec 2003
PRIORITY INFO: US 2003-488261 18 Jul 2003; US 2002-430804 4 Dec 2002
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2004-450740 [42]

L9 ANSWER 52 OF 112 MEDLINE on STN DUPLICATE 21
ACCESSION NUMBER: 2004538596 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15509864
TITLE: The AMP-activated protein kinase pathway--new players upstream and downstream.
AUTHOR: Hardie D Grahame
CORPORATE SOURCE: Division of Molecular Physiology, Wellcome Trust Biocentre, University of Dundee, Dow Street, Dundee, DD1 5EH, Scotland, UK.. d.g.hardie@dundee.ac.uk
SOURCE: Journal of cell science, (2004 Nov 1) Vol. 117, No. Pt 23, pp. 5479-87. Ref: 93
Journal code: 0052457. ISSN: 0021-9533.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200504
ENTRY DATE: Entered STN: 29 Oct 2004
Last Updated on STN: 12 Apr 2005
Entered Medline: 11 Apr 2005

L9 ANSWER 53 OF 112 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1003216 HCAPLUS
DOCUMENT NUMBER: 142:371356
TITLE: Metabolic syndrome and mechanism of action of adipocytokines
AUTHOR(S): Yamauchi, Toshimasa; Kadowaki, Takashi
CORPORATE SOURCE: Graduate School of Medicine, University of Tokyo, Japan
SOURCE: Gendai Iryo (2004), 36(9), 1869-1880
CODEN: GEIRDK; ISSN: 0533-7259
PUBLISHER: Gendai Iryosha
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese

L9 ANSWER 54 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2004475222 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15165993
TITLE: Cold-induced PGC-1alpha expression modulates muscle glucose uptake through an insulin receptor/Akt-independent, AMPK-dependent pathway.
AUTHOR: Oliveira Rachel L G S; Ueno Mirian; de Souza Claudio T; Pereira-da-Silva Marcio; Gasparetti Alessandra L; Bezzera Rosangela M N; Alberici Luciane C; Vercesi Anibal E; Saad Mario J A; Velloso Licio A
CORPORATE SOURCE: Department of Internal Medicine, State University of Campinas, SP 13083-970, Brazil.
SOURCE: American journal of physiology. Endocrinology and metabolism, (2004 Oct) Vol. 287, No. 4, pp. E686-95.
Electronic Publication: 2004-05-27.
Journal code: 100901226. ISSN: 0193-1849.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English

FILE SEGMENT: Priority Journals
ENTRY MONTH: 200410
ENTRY DATE: Entered STN: 25 Sep 2004
Last Updated on STN: 27 Oct 2004
Entered Medline: 26 Oct 2004

L9 ANSWER 55 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2003601419 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14684182
TITLE: mTOR integrates amino acid- and energy-sensing pathways.
AUTHOR: Tokunaga Chiharu; Yoshino Ken-ichi; Yonezawa Kazuyoshi
CORPORATE SOURCE: Biosignal Research Center, Kobe University, Kobe 657-8501, Japan.
SOURCE: Biochemical and biophysical research communications, (2004 Jan 9) Vol. 313, No. 2, pp. 443-6. Ref: 20
Journal code: 0372516. ISSN: 0006-291X.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200402
ENTRY DATE: Entered STN: 20 Dec 2003
Last Updated on STN: 11 Feb 2004
Entered Medline: 10 Feb 2004

L9 ANSWER 56 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:525159 BIOSIS
DOCUMENT NUMBER: PREV200510315122
TITLE: Decreased glucose utilization leads to glycogen accumulation in the hearts overexpressing mutant gamma 2 AMPK subunit.
AUTHOR(S): Luptak, Ivan [Reprint Author]; Balschi, James A.; He, Huamei; Arad, Michael; Ingwall, Joanne; Seidman, Christine E.; Seidman, J. G.; Tian, Rong
CORPORATE SOURCE: Brigham and Womens Hosp, Boston, MA 02115 USA
SOURCE: Circulation, (OCT 26 2004) Vol. 110, No. 17, Suppl. S, pp. 323.
Meeting Info.: 77th Scientific Meeting of the American-Heart-Association. New Orleans, LA, USA. November 07 -10, 2004. Amer Heart Assoc.
CODEN: CIRCAZ. ISSN: 0009-7322.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Dec 2005
Last Updated on STN: 1 Dec 2005

L9 ANSWER 57 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2004061780 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14512293
TITLE: Cloning and characterization of mouse 5'-AMP-activated protein kinase gamma3 subunit.
AUTHOR: Yu Haiyan; Fujii Nobuharu; Hirshman Michael F; Pomerleau Jason M; Goodyear Laurie J
CORPORATE SOURCE: Research Division, Joslin Diabetes Center, Brigham and Women's Hospital and Harvard Medical School, Boston, MA 02215, USA.
CONTRACT NUMBER: AR-42338 (NIAMS)
AR-45670 (NIAMS)
SOURCE: American journal of physiology. Cell physiology, (2004 Feb) Vol. 286, No. 2, pp. C283-92. Electronic Publication: 2003-09-24.

JOURNAL code: 100901225. ISSN: 0363-6143.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF525500; GENBANK-AF525501
ENTRY MONTH: 200402
ENTRY DATE: Entered STN: 7 Feb 2004
Last Updated on STN: 25 Feb 2004
Entered Medline: 24 Feb 2004

L9 ANSWER 58 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2004391709 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15294043
TITLE: Role of calcium and AMP kinase in the regulation of
mitochondrial biogenesis and GLUT4 levels in muscle.
AUTHOR: Ojuka Edward O
CORPORATE SOURCE: Department of Human Biology, University of Cape Town, Cape
Town 7700, South Africa.. eojuke@sports.uct.ac.za
SOURCE: The Proceedings of the Nutrition Society, (2004 May) Vol.
63, No. 2, pp. 275-8. Ref: 31
Journal code: 7505881. ISSN: 0029-6651.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200504
ENTRY DATE: Entered STN: 6 Aug 2004
Last Updated on STN: 9 Apr 2005
Entered Medline: 8 Apr 2005

L9 ANSWER 59 OF 112 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:152837 HCAPLUS
DOCUMENT NUMBER: 140:197419
TITLE: AMPK activity and isoform protein expression
are similar in muscle of obese subjects with and
without type 2 diabetes
AUTHOR(S): Hojlund, Kurt; Mustard, Kirsty J.; Staehr, Peter;
Hardie, D. Grahame; Beck-Nielsen, Henning; Richter,
Erik A.; Wojtaszewski, Jorgen F. P.
CORPORATE SOURCE: Diabetes Research Centre, Odense University Hospital,
University of Southern Denmark and Department of
Endocrinology, Odense, DK-5000, Den.
SOURCE: American Journal of Physiology (2004), 286(2, Pt. 1),
E239-E244
CODEN: AJPHAP; ISSN: 0002-9513
PUBLISHER: American Physiological Society
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 60 OF 112 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:509459 HCAPLUS
DOCUMENT NUMBER: 141:219050
TITLE: Etiology and metabolism of obesity; from the
point of energy expenditure
AUTHOR(S): Satoh, Noriko; Ogawa, Yoshihiro
CORPORATE SOURCE: Center for Endocrine and Metabolic Diseases, Kyoto
national Hospital, Kyoto, 612-8555, Japan
SOURCE: Naibunpi, Tonyobyoka (2004), 18(3), 226-233
CODEN: NATOFF; ISSN: 1341-3724
PUBLISHER: Kagaku Hyoronsha

DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese

L9 ANSWER 61 OF 112 MEDLINE on STN DUPLICATE 22
ACCESSION NUMBER: 2004068938 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14559719
TITLE: Expression profiling of the gamma-subunit
isoforms of AMP-activated protein kinase suggests a major
role for gamma3 in white skeletal muscle.
AUTHOR: Mahlapuu Margit; Johansson Carina; Lindgren Kerstin; Hjal
Goran; Barnes Brian R; Krook Anna; Zierath Juleen R;
Andersson Leif; Marklund Stefan
CORPORATE SOURCE: Arexis AB, Gothenburg, Sweden.
SOURCE: American journal of physiology. Endocrinology and
metabolism, (2004 Feb) Vol. 286, No. 2, pp. E194-200.
Electronic Publication: 2003-10-14.
Journal code: 100901226. ISSN: 0193-1849.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200402
ENTRY DATE: Entered STN: 12 Feb 2004
Last Updated on STN: 2 Mar 2004
Entered Medline: 27 Feb 2004

L9 ANSWER 62 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
reserved on STN
ACCESSION NUMBER: 2004382802 EMBASE
TITLE: [Insulin resistance pharmacology: Current situation and
perspectives].
FARMACOLOGIA DE LA INSULINORRESISTENCIA: SITUACION ACTUAL Y
PERSPECTIVAS.
AUTHOR: Gonzalez C.D.; Santoro S.G.; Sinay I.
CORPORATE SOURCE: Dr. I. Sinay, Direccion: Bulnes 2572, PB A, C1425DKT Buenos
Aires. isasinay@intramed.net.ar
SOURCE: Revista Argentina de Endocrinologia y Metabolismo, (2004)
Vol. 41, No. 3, pp. 159-169. .
Refs: 28
ISSN: 0326-4610 CODEN: RAEMA7
COUNTRY: Argentina
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: Spanish
SUMMARY LANGUAGE: English; Spanish
ENTRY DATE: Entered STN: 24 Sep 2004
Last Updated on STN: 24 Sep 2004

L9 ANSWER 63 OF 112 MEDLINE on STN DUPLICATE 23
ACCESSION NUMBER: 2003608925 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14691231
TITLE: Intrasteric control of AMPK via the gamma1
subunit AMP allosteric regulatory site.
AUTHOR: Adams Julian; Chen Zhi-Ping; Van Denderen Bryce J W; Morton
Craig J; Parker Michael W; Witters Lee A; Stapleton David;
Kemp Bruce E
CORPORATE SOURCE: St. Vincent's Institute of Medical Research, Fitzroy,
Victoria 3065, Australia.
CONTRACT NUMBER: DK35712 (NIDDK)
SOURCE: Protein science : a publication of the Protein Society,
(2004 Jan) Vol. 13, No. 1, pp. 155-65.

JOURNAL code: 9211750. ISSN: 0961-8368.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200407
ENTRY DATE: Entered STN: 24 Dec 2003
Last Updated on STN: 1 Aug 2004
Entered Medline: 30 Jul 2004

L9 ANSWER 64 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:299549 BIOSIS
DOCUMENT NUMBER: PREV200510088356
TITLE: Assignment of two isoforms of the AMP-activated protein kinase gamma subunits, PRKAG1 and PRKAG2 to porcine chromosomes 5 and 18, respectively by radiation hybrid panel mapping.
AUTHOR(S): Haberkern, G.; Regenhard, P.; Ottzen-Schirakow, G.; Kalm, E.; Looft, C. [Reprint Author]
CORPORATE SOURCE: Univ Kiel, Inst Anim Breeding and Husbandry, Olshausenstr 40, D-24098 Kiel, Germany
clooft@tierzucht.uni-kiel.de
SOURCE: Cytogenetic and Genome Research, (2004) Vol. 106, No. 1, pp. 142A-NIL_0001.
ISSN: 1424-8581.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: GenBank-NM_002733; EMBL-NM_002733; DDJB-NM_002733;
GenBank-NM_016203; EMBL-NM_016203; DDJB-NM_016203;
GenBank-BI401973; EMBL-BI401973; DDJB-BI401973;
GenBank-BI326904; EMBL-BI326904; DDJB-BI326904
ENTRY DATE: Entered STN: 15 Aug 2005
Last Updated on STN: 15 Aug 2005

L9 ANSWER 65 OF 112 MEDLINE on STN

ACCESSION NUMBER: 2004328979 MEDLINE
DOCUMENT NUMBER: PubMed ID: 15230153
TITLE: [Adiponectin--adipocytokine with a broad clinical spectrum].
Adiponektyna--adipocytokina o szerokim spektrum klinicznym.
AUTHOR: Szopa Magda; Malczewska-Malec Malgorzata; Wybranska Iwona; Kiec-Wilk Beata; Bodzioch Marek; Trzos Marcin; Dembinska-Kiec Aldona
CORPORATE SOURCE: Zaklad Biochemii Klinicznej, Collegium Medicum Uniwersytet Jagiellonski, Krakow.
SOURCE: Przegląd lekarski, (2004) Vol. 61, No. 2, pp. 109-14.
Ref: 70
Journal code: 19840720R. ISSN: 0033-2240.
PUB. COUNTRY: Poland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: Polish
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200408
ENTRY DATE: Entered STN: 3 Jul 2004
Last Updated on STN: 26 Aug 2004
Entered Medline: 25 Aug 2004

L9 ANSWER 66 OF 112 MEDLINE on STN

DUPLICATE 24

ACCESSION NUMBER: 2004077208 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14965188
TITLE: 5' adenosine monophosphate-activated protein kinase, metabolism and exercise.

AUTHOR: Aschenbach William G; Sakamoto Kei; Goodyear Laurie J
CORPORATE SOURCE: Research Division, Joslin Diabetes Center and Harvard
Medical School, Boston, Massachusetts, USA.
CONTRACT NUMBER: AR42238 (NIAMS)
AR45670 (NIAMS)
DK59769 (NIDDK)
SOURCE: Sports medicine (Auckland, N.Z.), (2004) Vol. 34, No. 2,
pp. 91-103. Ref: 89
Journal code: 8412297. ISSN: 0112-1642.
PUB. COUNTRY: New Zealand
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200405
ENTRY DATE: Entered STN: 18 Feb 2004
Last Updated on STN: 21 May 2004
Entered Medline: 20 May 2004

L9 ANSWER 67 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation
on STN

ACCESSION NUMBER: 2004:154168 SCISEARCH
THE GENUINE ARTICLE: 770XZ
TITLE: The AMP-activated protein kinase cascade - a unifying
system for energy control
AUTHOR: Carling D (Reprint)
CORPORATE SOURCE: Univ London Imperial Coll Sci Technol & Med, Hammersmith
Hosp, MRC, Ctr Clin Sci, Cellular Stress Grp, Du Cane Rd,
London W12 0NN, England (Reprint); Univ London Imperial
Coll Sci Technol & Med, Hammersmith Hosp, MRC, Ctr Clin
Sci, Cellular Stress Grp, London W12 0NN, England
COUNTRY OF AUTHOR: England
SOURCE: TRENDS IN BIOCHEMICAL SCIENCES, (JAN 2004) Vol. 29, No. 1,
pp. 18-24.
ISSN: 0968-0004.
PUBLISHER: ELSEVIER SCIENCE LONDON, 84 THEOBALDS RD, LONDON WC1X 8RR,
ENGLAND.
DOCUMENT TYPE: General Review; Journal
LANGUAGE: English
REFERENCE COUNT: 62
ENTRY DATE: Entered STN: 20 Feb 2004
Last Updated on STN: 20 Feb 2004
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 68 OF 112 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:478579 HCAPLUS
DOCUMENT NUMBER: 141:137819
TITLE: Adiponectin: From adipocyte to skeletal muscle
AUTHOR(S): Ferre, P.
CORPORATE SOURCE: INSERM U465, Centre de Recherches Biomedicales des
Cordeliers, Paris, F-75270/06, Fr.
SOURCE: Annales d'Endocrinologie (2004), 65(Suppl. 1),
1S36-1S43
CODEN: ANENAG; ISSN: 0003-4266
PUBLISHER: Masson Editeur
DOCUMENT TYPE: Journal; General Review
LANGUAGE: French
REFERENCE COUNT: 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 69 OF 112 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
DUPLICATE 25

ACCESSION NUMBER: 2003-23024 BIOTECHDS
TITLE: Novel isolated nucleic acid encoding human

Prkag3 promoter capable of directing transcription of a heterologous coding sequence, useful for screening compounds which modulate human Prkag3 promoter activity;
involving liposome vector-mediated gene transfer and expression in host cell for use in obesity, dyslipidemia and diabetes prevention and therapy

AUTHOR: SVENSSON T
PATENT ASSIGNEE: AREXIS AB
PATENT INFO: WO 2003064465 7 Aug 2003
APPLICATION INFO: WO 2003-IB762 31 Jan 2003
PRIORITY INFO: US 2002-353429 1 Feb 2002; US 2002-353429 1 Feb 2002
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-636796 [60]

L9 ANSWER 70 OF 112 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
DUPLICATE 26

ACCESSION NUMBER: 2003-24128 BIOTECHDS
TITLE: New transgenic non-human animals expressing an AMP-activated protein kinase gamma 3 subunit, useful as models for improving treatment, prevention or diagnosis of diseases related to energy metabolism, e.g. obesity or type 2 diabetes;
involving vector-mediated gene transfer and expression in host cell for use in disease diagnosis and prevention

AUTHOR: ANDERSSON L; MARKLUND S
PATENT ASSIGNEE: AREXIS AB
PATENT INFO: WO 2003063586 7 Aug 2003
APPLICATION INFO: WO 2003-IB912 31 Jan 2003
PRIORITY INFO: US 2002-353430 1 Feb 2002; US 2002-353430 1 Feb 2002
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-663404 [62]

L9 ANSWER 71 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation
on STN

ACCESSION NUMBER: 2003:632045 SCISEARCH
THE GENUINE ARTICLE: 702UL
TITLE: AMP-activated protein kinase regulates HNF4 alpha transcriptional activity by inhibiting dimer formation and decreasing protein stability

AUTHOR: Hong Y H; Varanasi U S; Yang W B; Leff T (Reprint)
CORPORATE SOURCE: Wayne State Univ, Sch Med, Dept Pathol CIMER, 540 E Canfield, Detroit, MI 48201 USA (Reprint); Wayne State Univ, Sch Med, Dept Pathol, Detroit, MI 48201 USA; Wayne State Univ, Sch Med, Ctr Integrat Metab & Endocrine Res, Detroit, MI 48201 USA; Pfizer Inc, Global Res & Dev, Dept Mol Sci, Ann Arbor, MI 48105 USA

COUNTRY OF AUTHOR: USA
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (25 JUL 2003) Vol. 278, No. 30, pp. 27495-27501.
ISSN: 0021-9258.

PUBLISHER: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650 ROCKVILLE PIKE, BETHESDA, MD 20814-3996 USA.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 53

ENTRY DATE: Entered STN: 8 Aug 2003

Last Updated on STN: 8 Aug 2003

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 72 OF 112 MEDLINE on STN

DUPLICATE 27

ACCESSION NUMBER: 2003566817 MEDLINE

DOCUMENT NUMBER: PubMed ID: 14500570
TITLE: Minireview: malonyl CoA, AMP-activated protein kinase, and adiposity.
AUTHOR: Ruderman Neil B; Saha Asish K; Kraegen Edward W
CORPORATE SOURCE: D.Phil., Diabetes Unit, Boston Medical Center, 650 Albany Street, X825, Boston, Massachusetts 02118, USA..
nruderman@medicine.bu.edu
CONTRACT NUMBER: DK 19514 (NIDDK)
SOURCE: Endocrinology, (2003 Dec) Vol. 144, No. 12, pp. 5166-71.
Electronic Publication: 2003-09-18. Ref: 57
Journal code: 0375040. ISSN: 0013-7227.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200401
ENTRY DATE: Entered STN: 16 Dec 2003
Last Updated on STN: 6 Jan 2004
Entered Medline: 5 Jan 2004

L9 ANSWER 73 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2003187802 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12682004
TITLE: Constitutively active adenosine monophosphate-activated protein kinase regulates voltage-gated sodium channels in ventricular myocytes.
AUTHOR: Light Peter E; Wallace Catriona H R; Dyck Jason R B
CORPORATE SOURCE: Department of Pharmacology, Faculty of Medicine and Dentistry, University of Alberta, Edmonton, Alberta, Canada.. peter.light@ualberta.ca
SOURCE: Circulation, (2003 Apr 22) Vol. 107, No. 15, pp. 1962-5.
Electronic Publication: 2003-04-07.
Journal code: 0147763. E-ISSN: 1524-4539.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200304
ENTRY DATE: Entered STN: 23 Apr 2003
Last Updated on STN: 26 Apr 2003
Entered Medline: 25 Apr 2003

L9 ANSWER 74 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2003256285 EMBASE
TITLE: The insulin-sensitizing role of the fat derived hormone adiponectin.
AUTHOR: Heilbronn L.K.; Smith S.R.; Ravussin E.
CORPORATE SOURCE: E. Ravussin, Pennington Biomedical Research Ctr., 6400 Perkins Road, Baton Rouge, LA 70808, United States.
ravusse@pbrc.edu
SOURCE: Current Pharmaceutical Design, (2003) Vol. 9, No. 17, pp. 1411-1418. .
Refs: 56
ISSN: 1381-6128 CODEN: CPDEFP
COUNTRY: Netherlands
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
029 Clinical Biochemistry
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

ENTRY DATE: Entered STN: 10 Jul 2003
Last Updated on STN: 10 Jul 2003

L9 ANSWER 75 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2003458447 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14519435
TITLE: Mutation analysis of AMP-activated protein kinase subunits
in inherited cardiomyopathies: implications for kinase
function and disease pathogenesis.
AUTHOR: Oliveira Sandra Marisa J; Ehtisham Javed; Redwood Charles
S; Ostman-Smith Ingegerd; Blair Edward M; Watkins Hugh
CORPORATE SOURCE: WTCHG, University of Oxford, Roosevelt Drive, Headington,
Oxford OX3 7BN, UK.
SOURCE: Journal of molecular and cellular cardiology, (2003 Oct)
Vol. 35, No. 10, pp. 1251-5.
Journal code: 0262322. ISSN: 0022-2828.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 2 Oct 2003
Last Updated on STN: 3 Jun 2004
Entered Medline: 2 Jun 2004

L9 ANSWER 76 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2003345779 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12877089
TITLE: Insulin-sensitizing agents: metformin and thiazolidinedione
derivatives.
AUTHOR: Satoh Jo
CORPORATE SOURCE: Division of Molecular Metabolism and Diabetes, Tohoku
University Graduate School of Medicine.
SOURCE: Nippon rinsho. Japanese journal of clinical medicine, (2003
Jul) Vol. 61, No. 7, pp. 1224-9. Ref: 20
Journal code: 0420546. ISSN: 0047-1852.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200309
ENTRY DATE: Entered STN: 25 Jul 2003
Last Updated on STN: 26 Sep 2003
Entered Medline: 25 Sep 2003

L9 ANSWER 77 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
reserved on STN DUPLICATE 28
ACCESSION NUMBER: 2003263557 EMBASE
TITLE: Regulation of channel gating by AMP-activated protein
kinase modulates cystic fibrosis transmembrane conductance
regulator activity in lung submucosal cells.
AUTHOR: Hallows K.R.; McCane J.E.; Kemp B.E.; Witters L.A.; Foskett
J.K.
CORPORATE SOURCE: J.K. Foskett, Dept. of Physiology, Univ. of Pennsylvania
Sch. of Med., B39 Anatomy/Chemistry Bldg., Philadelphia, PA
19104, United States. foskett@mail.med.upenn.edu
SOURCE: Journal of Biological Chemistry, (10 Jan 2003) Vol. 278,
No. 2, pp. 998-1004. .
Refs: 38
ISSN: 0021-9258 CODEN: JBCHA3
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry

LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 17 Jul 2003
Last Updated on STN: 17 Jul 2003

L9 ANSWER 78 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation
on STN

ACCESSION NUMBER: 2003:717677 SCISEARCH
THE GENUINE ARTICLE: 711HP
TITLE: Effects of chronic AICAR treatment on fiber composition,
enzyme activity, UCP3, and PGC-1 in rat muscles
AUTHOR: Suwa M; Nakano H; Kumagai S (Reprint)
CORPORATE SOURCE: Kyushu Univ, Inst Hlth Sci, Fukuoka 8168580, Japan
(Reprint); Nakamura Gakuen Univ, Dept Human Dev, Jonan Ku,
Fukuoka 8140198, Japan
COUNTRY OF AUTHOR: Japan
SOURCE: JOURNAL OF APPLIED PHYSIOLOGY, (SEP 2003) Vol. 95, No. 3,
pp. 960-968.
ISSN: 8750-7587.
PUBLISHER: AMER PHYSIOLOGICAL SOC, 9650 ROCKVILLE PIKE, BETHESDA, MD
20814 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 58
ENTRY DATE: Entered STN: 5 Sep 2003
Last Updated on STN: 5 Sep 2003
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 79 OF 112 MEDLINE on STN DUPLICATE 29

ACCESSION NUMBER: 2003226551 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12747837
TITLE: AMPK beta subunit targets metabolic
stress sensing to glycogen.
AUTHOR: Polekhina Galina; Gupta Abhilasha; Michell Belinda J; van
Denderen Bryce; Murthy Sid; Feil Susanne C; Jennings Ian G;
Campbell Duncan J; Witters Lee A; Parker Michael W; Kemp
Bruce E; Stapleton David
CORPORATE SOURCE: St. Vincent's Institute of Medical Research, University of
Melbourne, 41 Victoria Parade, Fitzroy, Australia.
CONTRACT NUMBER: DK35712 (NIDDK)
SOURCE: Current biology : CB, (2003 May 13) Vol. 13, No. 10, pp.
867-71.
Journal code: 9107782. ISSN: 0960-9822.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200401
ENTRY DATE: Entered STN: 16 May 2003
Last Updated on STN: 23 Jan 2004
Entered Medline: 22 Jan 2004

L9 ANSWER 80 OF 112 MEDLINE on STN

ACCESSION NUMBER: 2003226550 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12747836
TITLE: A novel domain in AMP-activated protein kinase causes
glycogen storage bodies similar to those seen in hereditary
cardiac arrhythmias.
AUTHOR: Hudson Emma R; Pan David A; James John; Lucocq John M;
Hawley Simon A; Green Kevin A; Baba Otto; Terashima Tatsuo;
Hardie D Grahame
CORPORATE SOURCE: Division of Molecular Physiology, Faculty of Life Sciences,
Wellcome Trust Biocentre, University of Dundee, Dow Street,
Scotland, United Kingdom.

SOURCE: Current biology : CB, (2003 May 13) Vol. 13, No. 10, pp. 861-6.
Journal code: 9107782. ISSN: 0960-9822.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200401
ENTRY DATE: Entered STN: 16 May 2003
Last Updated on STN: 23 Jan 2004
Entered Medline: 22 Jan 2004

L9 ANSWER 81 OF 112 LIFESCI COPYRIGHT 2006 CSA on STN
ACCESSION NUMBER: 2004:26476 LIFESCI
TITLE: The bovine 5 AMPK gene family: mapping and single nucleotide polymorphism detection
AUTHOR: McKay, S.D.; White, S.N.; Kata, S.R.; Loan, R.; Womack, J.E.
CORPORATE SOURCE: Department of Veterinary Pathobiology, Texas A & M University, College Station, TX 77843-4467, USA
SOURCE: Mammalian Genome [Mamm. Genome], (20031200) vol. 14, no. 12, pp. 853-858.
ISSN: 0938-8990.
DOCUMENT TYPE: Journal
FILE SEGMENT: G
LANGUAGE: English
SUMMARY LANGUAGE: English

L9 ANSWER 82 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2003081255 MEDLINE
DOCUMENT NUMBER: PubMed ID: 12391032
TITLE: 5'-AMP-activated protein kinase activity and subunit expression in exercise-trained human skeletal muscle.
AUTHOR: Nielsen Jakob N; Mustard Kirsty J W; Graham Drew A; Yu Haiyan; MacDonald Christopher S; Pilegaard Henriette; Goodyear Laurie J; Hardie D Grahame; Richter Erik A; Wojtaszewski Jorgen F P
CORPORATE SOURCE: Institute of Exercise and Sport Sciences, Copenhagen Muscle Research Centre, University of Copenhagen, Denmark..
JNNielsen@aki.ku.dk
SOURCE: Journal of applied physiology (Bethesda, Md. : 1985), (2003 Feb) Vol. 94, No. 2, pp. 631-41. Electronic Publication: 2002-10-11.
Journal code: 8502536. ISSN: 8750-7587.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200307
ENTRY DATE: Entered STN: 21 Feb 2003
Last Updated on STN: 22 Jul 2003
Entered Medline: 21 Jul 2003

L9 ANSWER 83 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2003:452683 BIOSIS
DOCUMENT NUMBER: PREV200300452683
TITLE: Muscle glycogenosis with low phosphorylase kinase activity: Mutations in PHKA1, PHKG1 or six other candidate genes explain only a minority of cases.
AUTHOR(S): Burwinkel, Barbara; Hu, Bin; Schroers, Anja; Clemens, Paula R.; Moses, Shimon W.; Shin, Yoon S.; Pongratz, Dieter; Vorgerd, Matthias; Kilimann, Manfred W. [Reprint Author]

CORPORATE SOURCE: Department of Cell and Molecular Biology, Uppsala University, S-75124, Box 596, BMC, Uppsala, Sweden
manfred.kilimann@icm.uu.se

SOURCE: European Journal of Human Genetics, (July 2003) Vol. 11, No. 7, pp. 516-526. print.
ISSN: 1018-4813.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 1 Oct 2003
Last Updated on STN: 1 Oct 2003

L9 ANSWER 84 OF 112 MEDLINE on STN DUPLICATE 30

ACCESSION NUMBER: 2003332642 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12864742

TITLE: The role of intramuscular lipid in insulin resistance.

AUTHOR: Hegarty B D; Furler S M; Ye J; Cooney G J; Kraegen E W

CORPORATE SOURCE: Garvan Institute of Medical Research, Sydney, Australia.

SOURCE: Acta physiologica Scandinavica, (2003 Aug) Vol. 178, No. 4, pp. 373-83. Ref: 121
Journal code: 0370362. ISSN: 0001-6772.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200308

ENTRY DATE: Entered STN: 17 Jul 2003
Last Updated on STN: 27 Aug 2003
Entered Medline: 26 Aug 2003

L9 ANSWER 85 OF 112 MEDLINE on STN DUPLICATE 31

ACCESSION NUMBER: 2003039118 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12546691

TITLE: Glycogen storage disease as a unifying mechanism of disease in the PRKAG2 cardiac syndrome.

AUTHOR: Gollob M H

CORPORATE SOURCE: Division of Cardiology, University of Western Ontario, London Health Sciences Centre, London, Ontario, Canada N6A 5A5.. mgollob@uwo.ca

SOURCE: Biochemical Society transactions, (2003 Feb) Vol. 31, No. Pt 1, pp. 228-31. Ref: 27
Journal code: 7506897. ISSN: 0300-5127.

PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200311

ENTRY DATE: Entered STN: 28 Jan 2003
Last Updated on STN: 11 Nov 2003
Entered Medline: 10 Nov 2003

L9 ANSWER 86 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2004:241177 BIOSIS

DOCUMENT NUMBER: PREV200400245683

TITLE: Molecular characterization and mutational screening of the PRKAG3 gene in the horse.

AUTHOR(S): Park, H. B.; Marklund, S.; Jeon, J. T.; Mickelson, J. R.; Valberg, S. J.; Sandberg, K.; Andersson, L. [Reprint Author]

CORPORATE SOURCE: Department of Medical Biochemistry and Microbiology, Uppsala Biomedical Centre, Uppsala University, SE-751 24, Box 597, Uppsala, Sweden

SOURCE: Leif.Andersson@imbim.uu.se
Cytogenetic and Genome Research, (2003) Vol. 102, No. 1-4,
pp. 211-216. print.
ISSN: 1424-8581 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: DDBJ-AY376689; EMBL-AY376689; GenBank-AY376689;
DDBJ-AY42371; EMBL-AY42371; GenBank-AY42371; DDBJ-AY42372;
EMBL-AY42372; GenBank-AY42372; DDBJ-AY42373; EMBL-AY42373;
GenBank-AY42373
ENTRY DATE: Entered STN: 6 May 2004
Last Updated on STN: 6 May 2004

L9 ANSWER 87 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN
ACCESSION NUMBER: 2003:516885 BIOSIS
DOCUMENT NUMBER: PREV200300518552
TITLE: Protein expression of AMPK alpha, beta,
gamma isoforms and effect of insulin on
AMPK activity in skeletal muscle from obese Type 2
diabetic subjects.
AUTHOR(S): Hojlund, K. [Reprint Author]; Mustard, K. J.; Staehr, P.
[Reprint Author]; Hardie, D. G.; Beck-Nielsen, H. [Reprint
Author]; Richter, E. A.; Wojtaszewski, J. F. P.
CORPORATE SOURCE: Department of Endocrinology, Odense University Hospital,
Odense C, Denmark
SOURCE: Diabetologia, (August 2003) Vol. 46, No. Supplement 2, pp.
A196-A197. print.
Meeting Info.: 18th Congress of the International Diabetes
Federation. Paris, France. August 24-29, 2003.
International Diabetes Federation.
CODEN: DBTGAI. ISSN: 0012-186X.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 5 Nov 2003
Last Updated on STN: 5 Nov 2003

L9 ANSWER 88 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on
STN
ACCESSION NUMBER: 2004:241169 BIOSIS
DOCUMENT NUMBER: PREV200400245675
TITLE: Comparative sequence analysis of the PRKAG3
region between human and pig: Evolution of
repetitive sequences and potential new exons.
AUTHOR(S): Amarger, V.; Erlandsson, R.; Pielberg, G.; Jeon, J.-T.;
Andersson, L. [Reprint Author]
CORPORATE SOURCE: Department of Medical Biochemistry and Microbiology BMC,
Uppsala University, SE-751 24, Box 597, Uppsala, Sweden
Leif.Andersson@imbim.uu.se
SOURCE: Cytogenetic and Genome Research, (2003) Vol. 102, No. 1-4,
pp. 163-172. print.
ISSN: 1424-8581 (ISSN print).
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: DDBJ-AY263402; EMBL-AY263402; GenBank-AY263402;
DDBJ-AY263454; EMBL-AY263454; GenBank-AY263454;
DDBJ-AY264345; EMBL-AY264345; GenBank-AY264345
ENTRY DATE: Entered STN: 6 May 2004
Last Updated on STN: 6 May 2004

L9 ANSWER 89 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
reserved on STN
ACCESSION NUMBER: 2003453272 EMBASE

TITLE: New progress in adipocytokine research.
 AUTHOR: Gong D.; Yang R.; Munir K.M.; Horenstein R.B.; Shuldiner A.R.
 CORPORATE SOURCE: Dr. A.R. Shuldiner, Div. Endocrinol., Diabet. and Nutr., University of Maryland, School of Medicine, 660 West Redwood Street, Baltimore, MD 21201, United States. ashuldin@medicine.umaryland.edu
 SOURCE: Current Opinion in Endocrinology and Diabetes, (2003) Vol. 10, No. 2, pp. 115-121. .
 Refs: 77
 ISSN: 1068-3097 CODEN: CENDES
 COUNTRY: United States
 DOCUMENT TYPE: Journal; General Review
 FILE SEGMENT: 003 Endocrinology
 006 Internal Medicine
 017 Public Health, Social Medicine and Epidemiology
 LANGUAGE: English
 SUMMARY LANGUAGE: English
 ENTRY DATE: Entered STN: 20 Nov 2003
 Last Updated on STN: 20 Nov 2003

L9 ANSWER 90 OF 112 MEDLINE on STN DUPLICATE 32
 ACCESSION NUMBER: 2003040979 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 12544642
 TITLE: Plasticity of skeletal muscle mitochondria: structure and function.
 AUTHOR: Hoppeler Hans; Fluck Martin
 CORPORATE SOURCE: Department of Anatomy, University of Bern, Switzerland.. hoppeler@ana.unibe.ch
 SOURCE: Medicine and science in sports and exercise, (2003 Jan) Vol. 35, No. 1, pp. 95-104. Ref: 101
 Journal code: 8005433. ISSN: 0195-9131.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals; Space Life Sciences
 ENTRY MONTH: 200304
 ENTRY DATE: Entered STN: 29 Jan 2003
 Last Updated on STN: 17 Apr 2003
 Entered Medline: 15 Apr 2003

L9 ANSWER 91 OF 112 MEDLINE on STN
 ACCESSION NUMBER: 2002733896 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 12397075
 TITLE: Functional analysis of mutations in the gamma 2 subunit of AMP-activated protein kinase associated with cardiac hypertrophy and Wolff-Parkinson-White syndrome.
 AUTHOR: Daniel Tyrone; Carling David
 CORPORATE SOURCE: Cellular Stress Group, MRC Clinical Sciences Centre, Hammersmith Hospital, DuCane Road, London W12 0NN, United Kingdom.
 SOURCE: The Journal of biological chemistry, (2002 Dec 27) Vol. 277, No. 52, pp. 51017-24. Electronic Publication: 2002-10-22.
 Journal code: 2985121R. ISSN: 0021-9258.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200302
 ENTRY DATE: Entered STN: 27 Dec 2002
 Last Updated on STN: 28 Feb 2003
 Entered Medline: 27 Feb 2003

L9 ANSWER 92 OF 112 MEDLINE on STN DUPLICATE 33
 ACCESSION NUMBER: 2002731814 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 12456644
 TITLE: The neurodegeneration mutant lochrig interferes with cholesterol homeostasis and Appl processing.
 AUTHOR: Tschape Jakob-Andreas; Hammerschmied Christine; Muhlig-Versen Max; Athenstaedt Karin; Daum Gunther; Kretzschmar Doris
 CORPORATE SOURCE: Lehrstuhl fur Entwicklungsbiologie, Universitatsstr. 31, Universitat Regensburg, D-93053 Regensburg, Germany.
 SOURCE: The EMBO journal, (2002 Dec 2) Vol. 21, No. 23, pp. 6367-76.
 Journal code: 8208664. ISSN: 0261-4189.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200301
 ENTRY DATE: Entered STN: 27 Dec 2002
 Last Updated on STN: 17 Jan 2003
 Entered Medline: 16 Jan 2003

L9 ANSWER 93 OF 112 MEDLINE on STN DUPLICATE 34
 ACCESSION NUMBER: 2002680677 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 12440973
 TITLE: Regulation of fatty acid synthesis and oxidation by the AMP-activated protein kinase.
 AUTHOR: Hardie D G; Pan D A
 CORPORATE SOURCE: Division of Molecular Physiology, School of Life Sciences, Dundee University, UK.. d.g.hardie@dundee.ac.uk
 SOURCE: Biochemical Society transactions, (2002 Nov) Vol. 30, No. Pt 6, pp. 1064-70. Ref: 50
 Journal code: 7506897. ISSN: 0300-5127.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 General Review; (REVIEW)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200306
 ENTRY DATE: Entered STN: 21 Nov 2002
 Last Updated on STN: 11 Jun 2003
 Entered Medline: 10 Jun 2003

L9 ANSWER 94 OF 112 MEDLINE on STN
 ACCESSION NUMBER: 2002479794 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 12093363
 TITLE: A homologue of AMP-activated protein kinase in Drosophila melanogaster is sensitive to AMP and is activated by ATP depletion.
 AUTHOR: Pan David A; Hardie D Grahame
 CORPORATE SOURCE: Division of Molecular Physiology, School of Life Sciences and Wellcome Trust Biocentre, Dundee University, Dundee DD1 5EH, Scotland, U.K.
 SOURCE: The Biochemical journal, (2002 Oct 1) Vol. 367, No. Pt 1, pp. 179-86.
 Journal code: 2984726R. ISSN: 0264-6021.
 PUB. COUNTRY: England: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200306
 ENTRY DATE: Entered STN: 21 Sep 2002
 Last Updated on STN: 18 Jun 2003

Entered Medline: 17 Jun 2003

L9 ANSWER 95 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation
on STN
ACCESSION NUMBER: 2002:501136 SCISEARCH
THE GENUINE ARTICLE: 562HH
TITLE: Effects of endurance training on activity and expression
of AMP-activated protein kinase isoforms in rat muscles
AUTHOR: Durante P E; Mustard K J; Park S H; Winder W W; Hardie D G
(Reprint)
CORPORATE SOURCE: Univ Dundee, Sch Life Sci, Div Mol Physiol, Wellcome Trust
Bioctr, Dow St, Dundee DD1 5EH, Scotland (Reprint); Univ
Dundee, Sch Life Sci, Div Mol Physiol, Wellcome Trust
Bioctr, Dundee DD1 5EH, Scotland; Brigham Young Univ, Dept
Physiol & Dev Biol, Provo, UT 84602 USA
COUNTRY OF AUTHOR: Scotland; USA
SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY-ENDOCRINOLOGY AND
METABOLISM, (JUL 2002) Vol. 283, No. 1, pp. E178-E186.
ISSN: 0193-1849.
PUBLISHER: AMER PHYSIOLOGICAL SOC, 9650 ROCKVILLE PIKE, BETHESDA, MD
20814 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 55
ENTRY DATE: Entered STN: 5 Jul 2002
Last Updated on STN: 5 Jul 2002
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 96 OF 112 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
DUPLICATE 35
ACCESSION NUMBER: 2002-02944 BIOTECHDS
TITLE: New variants of human AMP-activated protein-kinase
gamma3 subunit associated with a metabolic disease
e.g. diabetes or obesity and method for determining a risk
estimate of diseases in subject by detecting the variant;
the use of human recombinant protein in diabetes
determination
AUTHOR: Andersson L; Luthman H; Marlund S
PATENT ASSIGNEE: Arexis
LOCATION: Uppsala, Sweden.
PATENT INFO: WO 2001077305 18 Oct 2001
APPLICATION INFO: WO 2001-SE765 6 Apr 2001
PRIORITY INFO: US 2000-195665 7 Apr 2000
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2001-657170 [75]

L9 ANSWER 97 OF 112 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:208429 HCAPLUS
DOCUMENT NUMBER: 134:248842
TITLE: cDNA sequences encoding various human and
pig AMP-activated protein kinase .gamma.
subunits (gene PRKAG3), and methods used for
detecting gene PRKAG3 mutations leading to
altered glycogen accumulation in pig muscle cells
INVENTOR(S): Andersson, Leif; Looft, Christian; Kalm, Ernst; Milan,
Denis; Robic, Annie; Rogel-Gaillard, Claire;
Iannuccelli, Nathalie; Gellin, Joeel; Le Roy, Pascale;
Chardon, Patrick
PATENT ASSIGNEE(S): Institut National de la Recherche Agronomique (Inra),
Fr.
SOURCE: PCT Int. Appl., 71 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent

LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001020003	A2	20010322	WO 2000-EP9896	20000911
WO 2001020003	A3	20010517		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2384313	AA	20010322	CA 2000-2384313	20000911
BR 2000013890	A	20020507	BR 2000-13890	20000911
EP 1210441	A2	20020605	EP 2000-967845	20000911
EP 1210441	B1	20050413		
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL			
AT 293167	E	20050415	AT 2000-967845	20000911
AU 781744	B2	20050609	AU 2000-77864	20000911
ES 2239618	T3	20051001	ES 2000-967845	20000911
PRIORITY APPLN. INFO.:			EP 1999-402236	A 19990910
			EP 2000-401388	A 20000518
			WO 2000-EP9896	W 20000911

L9 ANSWER 98 OF 112 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2002:89894 BIOSIS
DOCUMENT NUMBER: PREV200200089894
TITLE: Wolff-Parkinson-White syndrome: A genetic disease?.
AUTHOR(S): Doevendans, Pieter A.; Wellens, Hein J. [Reprint author]
CORPORATE SOURCE: 21 Henric van Veldekeplein, 6211 TG, Maastricht, Netherlands
hwellens@xs4all.nl
SOURCE: Circulation, (December 18-25, 2001) Vol. 104, No. 25, pp. 3014-3016. print.
CODEN: CIRCAZ. ISSN: 0009-7322.
DOCUMENT TYPE: Article
Editorial
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Jan 2002
Last Updated on STN: 25 Feb. 2002

L9 ANSWER 99 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2001350327 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11371514
TITLE: Mutations in the gamma(2) subunit of AMP-activated protein kinase cause familial hypertrophic cardiomyopathy: evidence for the central role of energy compromise in disease pathogenesis.
AUTHOR: Blair E; Redwood C; Ashrafian H; Oliveira M; Broxholme J; Kerr B; Salmon A; Ostman-Smith I; Watkins H
CORPORATE SOURCE: Department of Cardiovascular Medicine and Wellcome Trust Centre for Human Genetics, University of Oxford, Oxford, UK.
SOURCE: Human molecular genetics, (2001 May 15) Vol. 10, No. 11, pp. 1215-20.
Journal code: 9208958. ISSN: 0964-6906.
PUB. COUNTRY: England: United Kingdom

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200108
ENTRY DATE: Entered STN: 20 Aug 2001
Last Updated on STN: 20 Aug 2001
Entered Medline: 16 Aug 2001

L9 ANSWER 100 OF 112 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN DUPLICATE 36

ACCESSION NUMBER: 2001326012 EMBASE
TITLE: Therapeutic perspectives for type 2 diabetes mellitus: Molecular and clinical insights.
AUTHOR: Mauvais-Jarvis F.; Andreelli F.; Hanairé-Broutin H.; Charbonnel B.; Girard J.
CORPORATE SOURCE: Dr. F. Mauvais-Jarvis, Service de Médecine B, Hôpital Lariboisière, 2, rue Ambroise Paré, Paris, France. FMauvaisJarvis@aol.com
SOURCE: Diabetes and Metabolism, (2001) Vol. 27, No. 4 I, pp. 415-423. .
Refs: 85
ISSN: 1262-3636 CODEN: DIMEFW
COUNTRY: France
DOCUMENT TYPE: Journal; General Review
FILE SEGMENT: 003 Endocrinology
006 Internal Medicine
037 Drug Literature Index
038 Adverse Reactions Titles
LANGUAGE: English
SUMMARY LANGUAGE: English; French
ENTRY DATE: Entered STN: 4 Oct 2001
Last Updated on STN: 4 Oct 2001

L9 ANSWER 101 OF 112 MEDLINE on STN DUPLICATE 37

ACCESSION NUMBER: 2001195102 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11171104
TITLE: Post-translational modifications of the beta-1 subunit of AMP-activated protein kinase affect enzyme activity and cellular localization.
AUTHOR: Warden S M; Richardson C; O'Donnell J Jr; Stapleton D; Kemp B E; Witters L A
CORPORATE SOURCE: Endocrine-Metabolism Division, Departments of Medicine and Biochemistry, Dartmouth Medical School, Remsen 322, N. College St, Hanover, NH 03755, U.S.A.
CONTRACT NUMBER: DK35712 (NIDDK)
SOURCE: The Biochemical journal, (2001 Mar 1) Vol. 354, No. Pt 2, pp. 275-83.
Journal code: 2984726R. ISSN: 0264-6021.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200104
ENTRY DATE: Entered STN: 10 Apr 2001
Last Updated on STN: 10 Apr 2001
Entered Medline: 5 Apr 2001

L9 ANSWER 102 OF 112 MEDLINE on STN

ACCESSION NUMBER: 2001390978 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11445078
TITLE: An activating mutation in the gamma subunit of the AMP-activated protein kinase.
AUTHOR: Hamilton S R; Stapleton D; O'Donnell J B Jr; Kung J T; Dalal S R; Kemp B E; Witters L A

CORPORATE SOURCE: Endocrine-Metabolism Division, Departments of Medicine and Biochemistry, Dartmouth Medical School, Hanover, NH 03755-3833, USA.
CONTRACT NUMBER: DK35712 (NIDDK)
SOURCE: FEBS letters, (2001 Jul 6) Vol. 500, No. 3, pp. 163-8. Journal code: 0155157. ISSN: 0014-5793.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200108
ENTRY DATE: Entered STN: 13 Aug 2001
Last Updated on STN: 13 Aug 2001
Entered Medline: 9 Aug 2001

L9 ANSWER 103 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2001261787 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11306812
TITLE: Cloning, organisation, chromosomal localization and expression analysis of the mouse Prkag1 gene.
AUTHOR: Shamsadin R; Jantsan K; Adham I; Engel W
CORPORATE SOURCE: Institute of Human Genetics, University of Gottingen, Gottingen, Germany.
SOURCE: Cytogenetics and cell genetics, (2001) Vol. 92, No. 1-2, pp. 134-8. Journal code: 0367735. ISSN: 0301-0171.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AF036535; GENBANK-AF266698; GENBANK-AF266699
ENTRY MONTH: 200105
ENTRY DATE: Entered STN: 21 May 2001
Last Updated on STN: 21 May 2001
Entered Medline: 17 May 2001

L9 ANSWER 104 OF 112 MEDLINE on STN
ACCESSION NUMBER: 2001227204 MEDLINE
DOCUMENT NUMBER: PubMed ID: 11252725
TITLE: Domain fusion between SNF1-related kinase subunits during plant evolution.
AUTHOR: Lumbreras V; Alba M M; Kleinow T; Koncz C; Pages M
CORPORATE SOURCE: Departament de Genetica Molecular, Barcelona, Spain.
SOURCE: EMBO reports, (2001 Jan) Vol. 2, No. 1, pp. 55-60. Journal code: 100963049. ISSN: 1469-221X.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200104
ENTRY DATE: Entered STN: 2 May 2001
Last Updated on STN: 20 Apr 2002
Entered Medline: 26 Apr 2001

L9 ANSWER 105 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2001:810149 SCISEARCH
THE GENUINE ARTICLE: 478AT
TITLE: AMP-activated protein kinase is highly expressed in neurons in the developing rat brain and promotes neuronal survival following glucose deprivation
AUTHOR: Culmsee C; Monnig J; Kemp B E; Mattson M P (Reprint)
CORPORATE SOURCE: NIA, Neurosci Lab, 5600 Nathan Shock Dr, Baltimore, MD 21224 USA (Reprint); NIA, Neurosci Lab, Baltimore, MD

21224 USA; Univ Marburg, Inst Pharmakol & Toxikol, D-35037 Marburg, Germany; Univ Kentucky, Sanders Brown Res Ctr Aging, Lexington, KY 40536 USA; St Vincents Hosp, St Vincents Inst Med Res, Fitzroy, Vic 3065, Australia; Johns Hopkins Univ, Sch Med, Dept Neurosci, Baltimore, MD 21205 USA

COUNTRY OF AUTHOR: USA; Germany; Australia
SOURCE: JOURNAL OF MOLECULAR NEUROSCIENCE, (AUG 2001) Vol. 17, No. 1, pp. 45-58.
ISSN: 0895-8696.
PUBLISHER: HUMANA PRESS INC, 999 RIVERVIEW DRIVE SUITE 208, TOTOWA, NJ 07512 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 59
ENTRY DATE: Entered STN: 19 Oct 2001
Last Updated on STN: 19 Oct 2001
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 106 OF 112 MEDLINE on STN DUPLICATE 38
ACCESSION NUMBER: 2000280150 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10818001
TITLE: A mutation in PRKAG3 associated with excess glycogen content in pig skeletal muscle.
AUTHOR: Milan D; Jeon J T; Looft C; Amarger V; Robic A; Thelander M; Rogel-Gaillard C; Paul S; Iannuccelli N; Rask L; Ronne H; Lundstrom K; Reinsch N; Gellin J; Kalm E; Roy P L; Chardon P; Andersson L
CORPORATE SOURCE: Laboratoire de Genetique Cellulaire, Institut National de la Recherche Agronomique (INRA), 31326 Castanet-Tolosan, France.
SOURCE: Science, (2000 May 19) Vol. 288, No. 5469, pp. 1248-51.
Journal code: 0404511. ISSN: 0036-8075.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200005
ENTRY DATE: Entered STN: 6 Jun 2000
Last Updated on STN: 6 Jun 2000
Entered Medline: 25 May 2000

L9 ANSWER 107 OF 112 MEDLINE on STN DUPLICATE 39
ACCESSION NUMBER: 2000164049 MEDLINE
DOCUMENT NUMBER: PubMed ID: 10698692
TITLE: Characterization of AMP-activated protein kinase gamma-subunit isoforms and their role in AMP binding.
AUTHOR: Cheung P C; Salt I P; Davies S P; Hardie D G; Carling D
CORPORATE SOURCE: Cellular Stress Group, MRC Clinical Sciences Centre, Imperial College School of Medicine, Hammersmith Hospital, Du Cane Road, London W12 0NN, U.K.
SOURCE: The Biochemical journal, (2000 Mar 15) Vol. 346 Pt 3, pp. 659-69.
Journal code: 2984726R. ISSN: 0264-6021.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-AJ249976; GENBANK-AJ249977
ENTRY MONTH: 200005
ENTRY DATE: Entered STN: 12 May 2000
Last Updated on STN: 12 May 2000
Entered Medline: 4 May 2000

L9 ANSWER 108 OF 112 MEDLINE on STN
 ACCESSION NUMBER: 2000123169 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 10659773
 TITLE: Sequence and phylogenetic analysis of the SNF4/AMPK gamma subunit gene from *Drosophila melanogaster*.
 AUTHOR: Yoshida E N; Benkel B F; Fong Y; Hickey D A
 CORPORATE SOURCE: Department of Biology, University of Ottawa, ON, Canada.
 SOURCE: Genome / National Research Council Canada = Genome / Conseil national de recherches Canada, (1999 Dec) Vol. 42, No. 6, pp. 1077-87.
 Journal code: 8704544. ISSN: 0831-2796.
 PUB. COUNTRY: Canada
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-AF094763; GENBANK-AF094764
 ENTRY MONTH: 200004
 ENTRY DATE: Entered STN: 27 Apr 2000
 Last Updated on STN: 27 Apr 2000
 Entered Medline: 14 Apr 2000

L9 ANSWER 109 OF 112 MEDLINE on STN
 ACCESSION NUMBER: 1998241616 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 9575201
 TITLE: Identification of a novel AMP-activated protein kinase beta subunit isoform that is highly expressed in skeletal muscle.
 AUTHOR: Thornton C; Snowden M A; Carling D
 CORPORATE SOURCE: Medical Research Council Clinical Sciences Centre, Cellular Stress Group, Imperial College School of Medicine, Hammersmith Hospital, DuCane Road, London W12 0NN, United Kingdom.
 SOURCE: The Journal of biological chemistry, (1998 May 15) Vol. 273, No. 20, pp. 12443-50.
 Journal code: 2985121R. ISSN: 0021-9258.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-AJ224538
 ENTRY MONTH: 199806
 ENTRY DATE: Entered STN: 25 Jun 1998
 Last Updated on STN: 3 Mar 2000
 Entered Medline: 12 Jun 1998

L9 ANSWER 110 OF 112 MEDLINE on STN DUPLICATE 40
 ACCESSION NUMBER: 97367941 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 9224708
 TITLE: AMP-activated protein kinase isoenzyme family: subunit structure and chromosomal location.
 AUTHOR: Stapleton D; Woollatt E; Mitchelhill K I; Nicholl J K; Fernandez C S; Michell B J; Witters L A; Power D A; Sutherland G R; Kemp B E
 CORPORATE SOURCE: St. Vincent's Institute of Medical Research, St. Vincent's Hospital, Fitzroy, Victoria, Australia.
 CONTRACT NUMBER: DK35712 (NIDDK)
 SOURCE: FEBS letters, (1997 Jun 16) Vol. 409, No. 3, pp. 452-6.
 Journal code: 0155157. ISSN: 0014-5793.
 PUB. COUNTRY: Netherlands
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-Y12556; GENBANK-Y12856

ENTRY MONTH: 199708
ENTRY DATE: Entered STN: 13 Aug 1997
Last Updated on STN: 29 Jan 1999
Entered Medline: 1 Aug 1997

L9 ANSWER 111 OF 112 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation
on STN

ACCESSION NUMBER: 1996:290859 SCISEARCH
THE GENUINE ARTICLE: UE730
TITLE: Non-catalytic beta- and gamma-subunit isoforms
of the 5'-AMP-activated protein kinase
AUTHOR: Gao G (Reprint); Fernandez C S; Stapleton D; Auster A S;
Widmer J; Dyck J R B; Kemp B E; Witters L A
CORPORATE SOURCE: DARTMOUTH COLL, SCH MED, DEPT MED, ENDOCRINE METAB DIV,
HANOVER, NH 03755; DARTMOUTH COLL, SCH MED, DEPT BIOCHEM,
HANOVER, NH 03755; ST VINCENTS INST MED RES, FITZROY, VIC
3065, AUSTRALIA
COUNTRY OF AUTHOR: USA; AUSTRALIA
SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (12 APR 1996) Vol. 271,
No. 15, pp. 8675-8681.
ISSN: 0021-9258.
PUBLISHER: AMER SOC BIOCHEMISTRY MOLECULAR BIOLOGY INC, 9650
ROCKVILLE PIKE, BETHESDA, MD 20814.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: English
REFERENCE COUNT: 28
ENTRY DATE: Entered STN: 1996
Last Updated on STN: 1996
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

L9 ANSWER 112 OF 112 MEDLINE on STN
ACCESSION NUMBER: 96132781 MEDLINE
DOCUMENT NUMBER: PubMed ID: 8557660
TITLE: Mammalian AMP-activated protein kinase subfamily.
AUTHOR: Stapleton D; Mitchelhill K I; Gao G; Widmer J; Michell B J;
Teh T; House C M; Fernandez C S; Cox T; Witters L A; Kemp B
E
CORPORATE SOURCE: St. Vincent's Institute of Medical Research, Fitzroy,
Victoria, Australia.
CONTRACT NUMBER: DK35712 (NIDDK)
SOURCE: The Journal of biological chemistry, (1996 Jan 12) Vol.
271, No. 2, pp. 611-4.
Journal code: 2985121R. ISSN: 0021-9258.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-T50799; GENBANK-U40819
ENTRY MONTH: 199602
ENTRY DATE: Entered STN: 12 Mar 1996
Last Updated on STN: 20 Apr 2002
Entered Medline: 26 Feb 1996

=> s glycogen (w)accumulat?

L10 4227 GLYCOGEN (W) ACCUMULAT?

=> d his

(FILE 'HOME' ENTERED AT 15:31:36 ON 20 OCT 2006)

FILE 'SCISEARCH' ENTERED AT 15:32:29 ON 20 OCT 2006

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 15:32:43 ON 20 OCT 2006

L1 828 S AMPK AND GAMMA
L2 320 S HUMAN AND L1
L3 184 S PRKAG3
L4 52 S HUMAN AND L3
L5 347 S L2 OR L4
L6 0 S METABLOIL? AND L5
L7 0 S METABLOL? AND L5
L8 203 S METABOL? AND L5
L9 112 DUP REM L8 (91 DUPLICATES REMOVED)
L10 4227 S GLYCOGEN (W)ACCUMULAT?

=> s l9 and l10

L11 8 L9 AND L10

=> d 1-8 ibib ab

L11 ANSWER 1 OF 8 MEDLINE on STN
ACCESSION NUMBER: 2005606380 MEDLINE
DOCUMENT NUMBER: PubMed ID: 16275868
TITLE: Increased alpha2 subunit-associated AMPK activity
and PRKAG2 cardiomyopathy.
AUTHOR: Ahmad Ferhaan; Arad Michael; Musi Nicolas; He Huamei; Wolf
Cordula; Branco Dorothy; Perez-Atayde Antonio R; Stapleton
David; Bali Deeksha; Xing Yanqiu; Tian Rong; Goodyear
Laurie J; Berul Charles I; Ingwall Joanne S; Seidman
Christine E; Seidman J G
CORPORATE SOURCE: Department of Genetics, Harvard Medical School, Howard
Hughes Medical Institute, Boston, MA, USA.
CONTRACT NUMBER: HL 52320 (NHLBI)
HL 63985 (NHLBI)
HL 67970 (NHLBI)
SOURCE: Circulation, (2005 Nov 15) Vol. 112, No. 20, pp. 3140-8.
Electronic Publication: 2005-11-07.
Journal code: 0147763. E-ISSN: 1524-4539.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 200603
ENTRY DATE: Entered STN: 16 Nov 2005
Last Updated on STN: 8 Mar 2006
Entered Medline: 7 Mar 2006

AB BACKGROUND: AMP-activated protein kinase (AMPK) regulatory
gamma2 subunit (PRKAG2) mutations cause a human cardiomyopathy
with cardiac hypertrophy, preexcitation, and glycogen deposition. PRKAG2
cardiomyopathy is recapitulated in transgenic mice overexpressing mutant
PRKAG2 N488I in the heart (TGgamma2N488I). AMPK is a
heterotrimeric kinase consisting of 1 catalytic (alpha) and 2 regulatory
(beta and gamma) subunits. Two alpha-subunit isoforms, alpha1
and alpha2, are expressed in the heart; however, the contribution of
AMPK utilization of these subunits to PRKAG2 cardiomyopathy is
unknown. Mice overexpressing a dominant-negative alpha2 subunit of
AMPK (TGalpha2DN) provide a tool for selectively inhibiting
alpha2, but not alpha1, subunit-associated AMPK activity.
METHODS AND RESULTS: In compound-heterozygous TGgamma2N488I/TGalpha2DN
mice, AMPK activity associated with alpha2 but not alpha1 was
decreased compared with TGgamma2N488I. The TGalpha2DN transgene reduced
the disease phenotype of TGgamma2N488I, partially or completely
normalizing the ECG, cardiac function, cardiac morphology, and exercise
capacity in compound-heterozygous mice. TGgamma2N488I hearts had normal
resting levels of high-energy phosphates and could improve cardiac
performance during exercise. Cardiac glycogen content decreased in

TGgamma2N488I mice after exercise stress, indicating availability of the stored glycogen for metabolic utilization. No differences in glycogen-metabolizing enzymes were observed. CONCLUSIONS: The PRKAG2 N488I mutation causes inappropriate AMPK activation, which leads to glycogen accumulation and conduction system disease. The accumulated glycogen can serve as an energy source, and the animals have contractile reserve during exercise. Because the dominant-negative alpha2 subunit attenuates the mutant PRKAG2 phenotype, AMPK complexes containing the alpha2 rather than the alpha1 subunit are the primary mediators of the effects of PRKAG2 mutations.

L11 ANSWER 2 OF 8 MEDLINE on STN
 ACCESSION NUMBER: 2004061780 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 14512293
 TITLE: Cloning and characterization of mouse 5'-AMP-activated protein kinase gamma3 subunit.
 AUTHOR: Yu Haiyan; Fujii Nobuharu; Hirshman Michael F; Pomerleau Jason M; Goodyear Laurie J
 CORPORATE SOURCE: Research Division, Joslin Diabetes Center, Brigham and Women's Hospital and Harvard Medical School, Boston, MA 02215, USA.
 CONTRACT NUMBER: AR-42338 (NIAMS)
 AR-45670 (NIAMS)
 SOURCE: American journal of physiology. Cell physiology, (2004 Feb) Vol. 286, No. 2, pp. C283-92. Electronic Publication: 2003-09-24.
 Journal code: 100901225. ISSN: 0363-6143.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-AF525500; GENBANK-AF525501
 ENTRY MONTH: 200402
 ENTRY DATE: Entered STN: 7 Feb 2004
 Last Updated on STN: 25 Feb 2004
 Entered Medline: 24 Feb 2004

AB Naturally occurring mutations in the regulatory gamma-subunit of 5'-AMP-activated protein kinase (AMPK) can result in pronounced pathological changes that may stem from increases in muscle glycogen levels, making it critical to understand the role(s) of the gamma-subunit in AMPK function. In this study we cloned the mouse AMPKgamma3 subunit and revealed that there are two transcription start sites, which result in a long form, gamma3L (AF525500) and a short form, gamma3S (AF525501). AMPKgamma3L is the predominant form in mouse and is specifically expressed in mouse skeletal muscle at the protein level. In skeletal muscle, AMPKgamma3 shows higher levels of expression in fast-twitch white glycolytic muscle (type IIb) compared with fast-twitch red oxidative glycolytic muscle (type IIa), whereas gamma3 is undetectable in soleus muscle, a slow-twitch oxidative muscle with predominantly type I fibers. AMPKgamma3 can coimmunoprecipitate with both alpha and beta AMPK subunits. Overexpression of gamma3S and gamma3L in mouse tibialis anterior muscle in vivo has no effect on alpha1 and alpha2 subunit expression and does not alter AMPKalpha2 catalytic activity. However, gamma3S and gamma3L overexpression significantly increases AMPKalpha1 phosphorylation and activity by approximately 50%. The increase in AMPKalpha1 activity is not associated with alterations in glycogen accumulation or glycogen synthase expression. In conclusion, the gamma3 subunit of AMPK is highly expressed in fast-twitch glycolytic skeletal muscle, and wild-type gamma3 functions in the regulation of alpha1 catalytic activity, but it is not associated with changes in muscle glycogen concentrations.

L11 ANSWER 3 OF 8 MEDLINE on STN
 ACCESSION NUMBER: 2003039118 MEDLINE

DOCUMENT NUMBER: PubMed ID: 12546691
TITLE: Glycogen storage disease as a unifying mechanism of disease
in the PRKAG2 cardiac syndrome.
AUTHOR: Gollob M H
CORPORATE SOURCE: Division of Cardiology, University of Western Ontario,
London Health Sciences Centre, London, Ontario, Canada N6A
5A5.. mgollob@uwo.ca
SOURCE: Biochemical Society transactions, (2003 Feb) Vol. 31, No.
Pt 1, pp. 228-31. Ref: 27
Journal code: 7506897. ISSN: 0300-5127.
PUB. COUNTRY: England: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200311
ENTRY DATE: Entered STN: 28 Jan 2003
Last Updated on STN: 11 Nov 2003
Entered Medline: 10 Nov 2003

AB The AMP-activated protein kinase (AMPK) system was first
discovered 30 years ago. Since that time, knowledge of the diverse
physiological functions of AMPK has grown rapidly and continues
to evolve. Most recently, the observation that spontaneously occurring
genetic mutations in the gamma regulatory subunits of
AMPK give rise to a skeletal and cardiac muscle disease emphasizes
the critical importance of AMPK in the maintenance of health and
disease. The cardiac phenotype observed in humans harbouring
genetic mutations in the gamma 2 regulatory subunit (PRKAG2) of
AMPK is consistent with abnormal glycogen
accumulation in the heart. The perturbation of AMPK
activity induced by genetic mutations in PRKAG2 and the resultant effect
on muscle cell glucose metabolism may be relevant to the issue
of targeting AMPK in drug development for insulin-resistant
diabetes mellitus.

L11 ANSWER 4 OF 8 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
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ACCESSION NUMBER: 2006218680 EMBASE
TITLE: Characterization of the role of .gamma.2 R531G
mutation in AMP-activated protein kinase in cardiac
hypertrophy and Wolff-Parkinson-White syndrome.
AUTHOR: Davies J.K.; Wells D.J.; Liu K.; Whitrow H.R.; Daniel T.D.;
Grignani R.; Lygate C.A.; Schneider J.E.; Noel G.; Watkins
H.; Carling D.
CORPORATE SOURCE: D. Carling, Cellular Stress Group, Hammersmith Campus,
Imperial College London, DuCane Rd., London W12 ONN, United
Kingdom. dcarling@imperial.ac.uk
SOURCE: American Journal of Physiology - Heart and Circulatory
Physiology, (2006) Vol. 290, No. 5, pp. H1942-H1951. .
Refs: 36
ISSN: 0363-6135 E-ISSN: 1522-1539 CODEN: AJPPDI
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 25 May 2006
Last Updated on STN: 25 May 2006

AB AMP-activated protein kinase (AMPK) is the downstream component
of a protein kinase cascade that plays a key role in the regulation of
energy metabolism. In humans, mutations in the .
gamma.2-subunit of AMPK cause cardiac hypertrophy
associated with Wolff-Parkinson-White syndrome, characterized by

ventricular preexcitation. The effect of these mutations on AMPK activity and in development of the disease is enigmatic. Here we report that transgenic mice with cardiac-specific expression of .gamma.2 harboring a mutation of arginine residue 531 to glycine (RG-TG) develop a striking cardiac phenotype by 4 wk of age, including hypertrophy, impaired contractile function, electrical conduction abnormalities, and marked glycogen accumulation. At this stage, AMPK activity isolated from hearts of RG-TG mice was almost completely abolished but could be restored after phosphorylation by an upstream AMPK kinase. At 1 wk of age, there was no detectable evidence of a cardiac phenotype, and AMPK activity in RG-TG hearts was similar to that in nontransgenic, control mice. We propose that mutations in .gamma.2 lead to suppression of total cardiac AMPK activity secondary to increased glycogen accumulation. The subsequent decrease in AMPK activity provides a mechanism that may explain the development of cardiac hypertrophy in this model. Copyright .COPYRGT. 2006 the American Physiological Society.

L11 ANSWER 5 OF 8 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
 ACCESSION NUMBER: 2006:370821 BIOSIS
 DOCUMENT NUMBER: PREV200600366187
 TITLE: Characterization of the role of gamma 2 R531G

AUTHOR(S): Davies, Joanna K.; Wells, Dominic J.; Liu, Ke; Whitrow, Helen R.; Daniel, Tyrone D.; Grignani, Robert; Lygate, Craig A.; Schneider, Juergen E.; Noel, Gaetane; Watkins, Hugh; Carling, David [Reprint Author]

CORPORATE SOURCE: Univ London Imperial Coll Sci and Technol, Cellular Stress Grp, MRC, Ctr Clin Sci, Hammersmith Campus, DuCane Rd, London W12 0NN, UK
 dcarling@imperial.ac.uk

SOURCE: American Journal of Physiology - Heart and Circulatory Physiology, (MAY 2006) Vol. 290, No. 5, pp. H1942-H1951.
 ISSN: 0363-6135.

DOCUMENT TYPE: Article

LANGUAGE: English

ENTRY DATE: Entered STN: 26 Jul 2006

Last Updated on STN: 26 Jul 2006

AB AMP-activated protein kinase (AMPK) is the downstream component of a protein kinase cascade that plays a key role in the regulation of energy metabolism. In humans, mutations in the gamma 2-subunit of AMPK cause cardiac hypertrophy associated with Wolff-Parkinson-White syndrome, characterized by ventricular preexcitation. The effect of these mutations on AMPK activity and in development of the disease is enigmatic. Here we report that transgenic mice with cardiac-specific expression of gamma 2 harboring a mutation of arginine residue 531 to glycine (RG-TG) develop a striking cardiac phenotype by 4 wk of age, including hypertrophy, impaired contractile function, electrical conduction abnormalities, and marked glycogen accumulation. At this stage, AMPK activity isolated from hearts of RG-TG mice was almost completely abolished but could be restored after phosphorylation by an upstream AMPK kinase. At 1 wk of age, there was no detectable evidence of a cardiac phenotype, and AMPK activity in RG-TG hearts was similar to that in nontransgenic, control mice. We propose that mutations in gamma 2 lead to suppression of total cardiac AMPK activity secondary to increased glycogen accumulation. The subsequent decrease in AMPK activity provides a mechanism.

L11 ANSWER 6 OF 8 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
 ACCESSION NUMBER: 2005:536208 BIOSIS
 DOCUMENT NUMBER: PREV200510321712

TITLE: The AMP-activated protein kinase cascade: regulating energy balance at the single cell and whole body levels.
AUTHOR(S): Hardie, David Grahame [Reprint Author]
CORPORATE SOURCE: Univ Dundee, David Grahame Hardie Sch Life Sci, Wellcome Trust Bioctr, Dundee DD1 5EH, UK
SOURCE: FASEB Journal, (MAR 7 2005) Vol. 19, No. 5, Suppl. S, Part 2, pp. A1721-A1722.
Meeting Info.: Experimental Biology 2005 Meeting/35th International Congress of Physiological Sciences. San Diego, CA, USA. March 31 -April 06, 2005. Amer Assoc Anatomists; Amer Assoc Immunologists; Amer Physiol Soc; Amer Soc Biochem & Mol Biol; Amer Soc Investigat Pathol; Amer Soc Nutr Sci; Amer Soc Pharmacol & Expt Therapeut; Int Union Physiol Sci.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LANGUAGE: English
ENTRY DATE: Entered STN: 1 Dec 2005
Last Updated on STN: 1 Dec 2005

AB The AMP-activated protein kinase (AMPK) is the downstream component of a kinase cascade that acts as a sensor of cellular energy status. Falling ATP causes a large rise in AMP due to the action of adenylate kinase. AMP activates (and ATP inhibits) via allosteric effects and by stimulating phosphorylation of the kinase domain on the α subunit by upstream kinase(s). The major upstream kinase is a complex containing the tumor suppressor, LKB1, although there are indications that others exist. LKB1, which also lies upstream of a family of 11 AMPK-related kinases, is constitutively active, but AMP binding to AMPK makes it a better substrate for LKB1. There are two binding sites for AMP and ATP on the γ subunit of AMPK, which bind the nucleotides with positive co-operativity. Binding of AMP to the N-terminal site causes a conformational change that prevents a pseudosubstrate sequence from inhibiting the kinase domain on the α subunit. Point mutations in the AMP-binding sites of the γ subunit cause hereditary cardiac arrhythmias. They interfere with AMP and ATP binding but also increase the basal phosphorylation by LKB1, and thus the basal activity. This causes excessive glycogen accumulation, and the arrhythmias appear to be a secondary consequence of this. AMPK has many downstream targets and when activated it switches on ATP-producing catabolic pathways while switching off ATP-consuming processes. One recently identified target is TSC2, via which AMPK has a major influence on cell growth by inhibiting the TOR pathway. As well as regulating energy balance at the cellular level, AMPK also performs this task at the whole body level, by mediating the effects of adipokines and gut hormones such as leptin, adiponectin, resistin and ghrelin. AMPK is also involved in sensing hypoxia at the whole body level, via actions in the carotid body and pulmonary arteries.

L11 ANSWER 7 OF 8 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:525159 BIOSIS
DOCUMENT NUMBER: PREV200510315122
TITLE: Decreased glucose utilization leads to glycogen accumulation in the hearts overexpressing mutant γ 2 AMPK subunit.
AUTHOR(S): Luptak, Ivan [Reprint Author]; Balschi, James A.; He, Huamei; Arad, Michael; Ingwall, Joanne; Seidman, Christine E.; Seidman, J. G.; Tian, Rong
CORPORATE SOURCE: Brigham and Womens Hosp, Boston, MA 02115 USA
SOURCE: Circulation, (OCT 26 2004) Vol. 110, No. 17, Suppl. S, pp. 323.
Meeting Info.: 77th Scientific Meeting of the American-Heart-Association. New Orleans, LA, USA. November

07 -10, 2004. Amer Heart Assoc.

CODEN: CIRCAZ. ISSN: 0009-7322.

DOCUMENT TYPE:

Conference; (Meeting)

Conference; Abstract; (Meeting Abstract)

LANGUAGE:

English

ENTRY DATE:

Entered STN: 1 Dec 2005

Last Updated on STN: 1 Dec 2005

AB It has been shown that excessive glycogen accumulation contributes to the development of the hypertrophic cardiomyopathy linked to mutations in gamma 2 AMPK subunit. Transgenic mice (TG) with cardiac-specific overexpression of mutant (N488I) gamma 2 AMPK subunit mimic the human disease, but the mechanism of glycogen accumulation in these hearts is not known. We tested the hypothesis that mutation of gamma 2 AMPK subunit causes a decrease of glucose utilization leading to glycogen accumulation. Isolated hearts from WT and TG groups were perfused in Langendorff mode with Krebs-Henseleit buffer containing C-13 labeled substrates (mM): 0.4 mixed fatty acids, 1 lactate, 0.19 beta-hydroxybutyrate, 5.5 glucose and 50 mu U/ml insulin. 13C NMR spectroscopy and oxygen consumption were used to measure glycolytic flux and substrate oxidation rates. 2-deoxyglucose uptake was measured using P-31 NMR spectroscopy. Isovolumic contractile function was estimated as rate pressure product (RPP). Table (n=6-15 in each group) shows the results. TG hearts showed significant hypertrophy with 5-fold higher glycogen content than WT. RPP was decreased by 20%, Glucose uptake was markedly increased (2-fold) while glycolytic flux and glucose oxidation were decreased (7 and 2 fold, respectively). Thus, it is likely that this discoordination of glucose uptake and utilization results in glycogen accumulation that contributes to cardiac hypertrophy and functional deterioration in hearts with mutations in gamma 2 AMPK subunit. [GRAPHICS]

L11 ANSWER 8 OF 8 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:208429 HCAPLUS

DOCUMENT NUMBER: 134:248842

TITLE: cDNA sequences encoding various human and pig AMP-activated protein kinase .gamma. subunits (gene PRKAG3), and methods used for detecting gene PRKAG3 mutations leading to altered glycogen accumulation in pig muscle cells

INVENTOR(S): Andersson, Leif; Looft, Christian; Kalm, Ernst; Milan, Denis; Robic, Annie; Rogel-Gaillard, Claire; Iannuccelli, Nathalie; Gellin, Joeel; Le Roy, Pascale; Chardon, Patrick

PATENT ASSIGNEE(S): Institut National de la Recherche Agronomique (Inra), Fr.

SOURCE: PCT Int. Appl., 71 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001020003	A2	20010322	WO 2000-EP9896	20000911
WO 2001020003	A3	20010517		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2384313	AA	20010322	CA 2000-2384313	20000911
BR 2000013890	A	20020507	BR 2000-13890	20000911
EP 1210441	A2	20020605	EP 2000-967845	20000911
EP 1210441	B1	20050413		

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL

AT 293167	E	20050415	AT 2000-967845	20000911
AU 781744	B2	20050609	AU 2000-77864	20000911
ES 2239618	T3	20051001	ES 2000-967845	20000911

PRIORITY APPLN. INFO.:
 EP 1999-402236 A 19990910
 EP 2000-401388 A 20000518
 WO 2000-EP9896 W 20000911

AB The invention provides cDNA mols. encoding various muscle-specific adenosine monophosphate-activated protein kinase (AMPK) . gamma. subunits isolated from human and Sus scrofa. The invention also provides: (1) primers and probes specific for said cDNA mols.; (2) recombinant vectors comprising said cDNA mols.; and (3) host cells and/or animals transformed with said vectors. The invention further provides mutants of the S. scrofa AMPK .gamma. subunit, which involve an arginine->glutamine substitution at position 41, and/or a valine->isoleucine substitution at position 40. Still further, the invention provides genotyping techniques using, such as polymerase chain reaction (PCR), restriction fragment length polymorphism (RFLP), and nucleic acid hybridization for detection of a metabolic disorder (such as altered glycogen accumulation) in pigs, resulting from a mutation in the AMPK .gamma. subunit gene using said primers and/or probes. The invention relates that the mol. genetic techniques can also be used to detect single nucleotide polymorphisms in the AMPK . gamma. subunit gene. Finally, the invention provides for the use of said transformed cells, transgenic and/or knockout animals for screening compds. able to modulate AMPK activity. The cDNA sequences, as well as the corresponding amino acid sequences of various forms of AMPK .gamma. subunits from human and S. scrofa are provided. The invention designated PRKAG3 as the gene encoding the muscle-specific AMPK .gamma. subunit, and provides evidence that PRKAG3 is identical to the RN gene, a gene found associated with high muscular content of glycogen. The invention also provides evidence that the R41Q substitution is most likely the causative mutation in RN- animals which have an increase in muscle glycogen. The invention also discussed how identification of the RN- allele, or mutations in the PRKAG3, gene can be used to improve meat quality and/or breeding in the pig industry.

=> d his

(FILE 'HOME' ENTERED AT 15:31:36 ON 20 OCT 2006)

FILE 'SCISEARCH' ENTERED AT 15:32:29 ON 20 OCT 2006

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 15:32:43 ON 20 OCT 2006

L1	828 S AMPK AND GAMMA
L2	320 S HUMAN AND L1
L3	184 S PRKAG3
L4	52 S HUMAN AND L3
L5	347 S L2 OR L4
L6	0 S METABLOIL? AND L5
L7	0 S METABLOL? AND L5
L8	203 S METABOL? AND L5

L9 112 DUP REM L8 (91 DUPLICATES REMOVED)
L10 4227 S GLYCOGEN (W) ACCUMULAT?
L11 8 S L9 AND L10

=> e andersson l/au

E1	1	ANDERSSON KURT GOERAN/AU
E2	1	ANDERSSON KURT HOLGER/AU
E3	2704 -->	ANDERSSON L/AU
E4	5	ANDERSSON L */AU
E5	135	ANDERSSON L A/AU
E6	7	ANDERSSON L A H/AU
E7	4	ANDERSSON L B/AU
E8	1112	ANDERSSON L C/AU
E9	1	ANDERSSON L C G/AU
E10	1	ANDERSSON L C L/AU
E11	47	ANDERSSON L E/AU
E12	7	ANDERSSON L F/AU

=> s e3

L12 2704 "ANDERSSON L"/AU

=> e looft c/au

E1	1	LOOFSWISSOWA H H E/AU
E2	5	LOOFT AXEL/AU
E3	141 -->	LOOFT C/AU
E4	2	LOOFT C H R/AU
E5	1	LOOFT CHR/AU
E6	40	LOOFT CHRISTIAN/AU
E7	2	LOOFT D/AU
E8	2	LOOFT D J/AU
E9	3	LOOFT F/AU
E10	1	LOOFT F C/AU
E11	64	LOOFT F J/AU
E12	1	LOOFT F J 3RD/AU

=> s e3

L13 141 "LOOFT C"/AU

=> e chardon p/au

E1	28	CHARDON NOBLAT S/AU
E2	37	CHARDON NOBLAT SYLVIE/AU
E3	482 -->	CHARDON P/AU
E4	1	CHARDON P J/AU
E5	98	CHARDON PATRICK/AU
E6	2	CHARDON PAUL/AU
E7	1	CHARDON PENDARIES E/AU
E8	7	CHARDON R/AU
E9	1	CHARDON R E/AU
E10	10	CHARDON S/AU
E11	2	CHARDON S D/AU
E12	1	CHARDON SYLVIE/AU

=> s e3

L14 482 "CHARDON P"/AU

=> e milan d/au

E1	1	MILAN CLAUDE/AU
E2	2	MILAN CLAUDIA/AU
E3	417 -->	MILAN D/AU
E4	1	MILAN D F/AU
E5	2	MILAN D H/AU
E6	36	MILAN D J/AU
E7	1	MILAN DANIEL/AU
E8	1	MILAN DANIELA/AU

E9 5 MILAN DANIELE/AU
E10 5 MILAN DAVID/AU
E11 28 MILAN DAVID J/AU
E12 1 MILAN DE GRADO S/AU

=> s e3

L15 417 "MILAN D"/AU

=> d his

(FILE 'HOME' ENTERED AT 15:31:36 ON 20 OCT 2006)

FILE 'SCISEARCH' ENTERED AT 15:32:29 ON 20 OCT 2006

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 15:32:43 ON 20 OCT 2006

L1 828 S AMPK AND GAMMA
L2 320 S HUMAN AND L1
L3 184 S PRKAG3
L4 52 S HUMAN AND L3
L5 347 S L2 OR L4
L6 0 S METABLOIL? AND L5
L7 0 S METABLOL? AND L5
L8 203 S METABOL? AND L5
L9 112 DUP REM L8 (91 DUPLICATES REMOVED)
L10 4227 S GLYCOGEN (W)ACCUMULAT?
L11 8 S L9 AND L10
E ANDERSSON L/AU
L12 2704 S E3
E LOOFT C/AU
L13 141 S E3
E CHARDON P/AU
L14 482 S E3
E MILAN D/AU
L15 417 S E3

=> s l12 or l13 or l14 or l15

L16 3620 L12 OR L13 OR L14 OR L15

=> s l5 and l16'

MISMATCHED QUOTE 'L144''

Quotation marks (or apostrophes) must be used in pairs, one before and one after the expression you are setting off or masking.

=> s l5 and l16'

MISMATCHED QUOTE 'L144''

Quotation marks (or apostrophes) must be used in pairs, one before and one after the expression you are setting off or masking.

=> s l5 and l16

L17 27 L5 AND L16

=> dup rem l17

PROCESSING COMPLETED FOR L17

L18 11 DUP REM L17 (16 DUPLICATES REMOVED)

=> d 1-11 ibib ab

L18 ANSWER 1 OF 11 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on STN

ACCESSION NUMBER: 2005:1217482 SCISEARCH

THE GENUINE ARTICLE: 988HB

TITLE: Changes in exercise-induced gene expression in 5
'-AMP-activated protein kinase gamma 3-null and
gamma 3 R225Q transgenic mice

AUTHOR: Barnes B R; Long Y C; Steiler T L; Leng Y; Galuska D;
Wojtaszewski J F P; Andersson L; Zierath J R
(Reprint)

CORPORATE SOURCE: Karolinska Inst, Dept Surg Sci, Sect Integrat Physiol, Von
Eulers Vag 4, 4th Floor, S-17177 Stockholm, Sweden
(Reprint); Karolinska Inst, Dept Surg Sci, Sect Integrat
Physiol, S-17177 Stockholm, Sweden; Karolinska Inst, Dept
Physiol & Pharmacol, S-17177 Stockholm, Sweden; Chinese
Acad Sci, Shanghai Inst Mat Med, Shanghai 200031, Peoples
R China; Univ Copenhagen, Inst Exercise & Sport Sci,
Copenhagen Muscle Res Ctr, Dept Human Physiol, Copenhagen,
Denmark; Swedish Univ Agr Sci, Uppsala Biomed Ctr, Dept
Anim Breeding & Genet, Uppsala, Sweden; Uppsala Univ,
Uppsala Biomed Ctr, Dept Med Biochem & Microbiol, Uppsala,
Sweden
juleen.zierath@fyfa.ki.se

COUNTRY OF AUTHOR: Sweden; Peoples R China; Denmark

SOURCE: DIABETES, (DEC 2005) Vol. 54, No. 12, pp. 3484-3489.
ISSN: 0012-1797.

PUBLISHER: AMER DIABETES ASSOC, 1701 N BEAUREGARD ST, ALEXANDRIA, VA
22311-1717 USA.

DOCUMENT TYPE: Article; Journal

LANGUAGE: English

REFERENCE COUNT: 28

ENTRY DATE: Entered STN: 15 Dec 2005
Last Updated on STN: 15 Dec 2005

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB 5'-AMP-activated protein kinase (AMPK) is important for
metabolic sensing. We used AMPK gamma 3
mutant-overexpressing Tg-Prkag3(225Q) and AMPK
gamma 3-knockout Prkag3(-/-) mice to determine the role
of the AMPK gamma 3 isoform in exercise-induced
metabolic and gene regulatory responses in skeletal muscle. Mice were
studied after 2 h swimming or 2.5 h recovery. Exercise increased basal
and insulin-stimulated glucose transport, with similar responses among
genotypes. In Tg-Prkag3(225Q) mice, acetyl-CoA carboxylase
(ACC) phosphorylation was increased and triglyceride content was reduced
after exercise, suggesting that this mutation promotes greater reliance on
lipid oxidation. In contrast, ACC phosphorylation and triglyceride
content was similar between wild-type and Prkag3(-/-) mice.
Expression of genes involved in lipid and glucose metabolism was altered
by genetic modification of AMPK gamma 3. Expression
of lipoprotein lipase 1, carnitine palmitoyl transferase 1b, and
3-hydroxyacyl-CoA dehydrogenase was increased in Tg-Prkag3(225Q)
mice, with opposing effects in Prkag3(-/-) mice after exercise.
GLUT4, hexokinase 11 (HKII), and glycogen synthase mRNA expression was
increased in Tg-Prkag3(225Q) mice after exercise. GLUT4 and
HKII mRNA expression was increased in wild-type mice and blunted in
Prkag3(-/-) mice after recovery. In conclusion, the
Prkag3(225Q) mutation, rather than presence of a functional
AMPK gamma 3 isoform, directly promotes metabolic and
gene regulatory responses along lipid oxidative pathways in skeletal
muscle after endurance exercise.

L18 ANSWER 2 OF 11 MEDLINE on STN

ACCESSION NUMBER: 2005604270 MEDLINE

DOCUMENT NUMBER: PubMed ID: 16237515

TITLE: Role of AMP-activated protein kinase in the coordinated
expression of genes controlling glucose and lipid
metabolism in mouse white skeletal muscle.

AUTHOR: Long Y C; Barnes B R; Mahlapuu M; Steiler T L; Martinsson

S; Leng Y; Wallberg-Henriksson H; Andersson L;
Zierath J R

CORPORATE SOURCE: Department of Surgical Sciences, Section for Integrative
Physiology, Karolinska Institute, Stockholm, Sweden.

SOURCE: Diabetologia, (2005 Nov) Vol. 48, No. 11, pp. 2354-64.
Electronic Publication: 2005-10-20.
Journal code: 0006777. ISSN: 0012-186X.

PUB. COUNTRY: Germany: Germany, Federal Republic of

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200601

ENTRY DATE: Entered STN: 15 Nov 2005
Last Updated on STN: 27 Jan 2006
Entered Medline: 26 Jan 2006

AB AIMS/HYPOTHESIS: AMP-activated protein kinase (AMPK) regulates
metabolic adaptations in skeletal muscle. The aim of this study was to
investigate whether AMPK modulates the expression of skeletal
muscle genes that have been implicated in lipid and glucose metabolism
under fed or fasting conditions. METHODS: Two genetically modified animal
models were used: AMPK gamma3 subunit knockout mice (Prkag3(-/-)) and skeletal muscle-specific transgenic mice (Tg-Prkag3(225Q)) that express a mutant (R225Q) gamma3 subunit. Levels of mRNA transcripts of genes involved in lipid and glucose metabolism in white gastrocnemius muscles of these mice (under fed or 16-h fasting conditions) were assessed by quantitative real-time PCR. RESULTS: Wild-type mice displayed a coordinated increase in the transcription of skeletal muscle genes encoding proteins involved in lipid/oxidative metabolism (lipoprotein lipase, fatty acid transporter, carnitine palmitoyl transferase-1 and citrate synthase) and glucose metabolism (glycogen synthase and lactate dehydrogenase) in response to fasting. In contrast, these fasting-induced responses were impaired in Prkag3(-/-) mice. The transcription of genes involved in lipid and oxidative metabolism was increased in the skeletal muscle of Tg-Prkag3(225Q) mice compared with that in wild-type mice. Moreover, the expression of the genes encoding hexokinase II and 6-phosphofructokinase was decreased in Tg-Prkag3(225Q) mice after fasting. CONCLUSIONS/INTERPRETATION: AMPK is involved in the coordinated transcription of genes critical for lipid and glucose metabolism in white glycolytic skeletal muscle.

L18 ANSWER 3 OF 11 SCISEARCH COPYRIGHT (c) 2006 The Thomson Corporation on
STN

ACCESSION NUMBER: 2004:46929 SCISEARCH

THE GENUINE ARTICLE: 758UB

TITLE: Expression profiling of the gamma-subunit
isoforms of AMP-activated protein kinase suggests a major
role for gamma 3 in white skeletal muscle

AUTHOR: Mahlapuu M; Johansson C; Lindgren K; Hjalms G; Barnes B R;
Krook A; Zierath J R; Andersson L; Marklund S
(Reprint)

CORPORATE SOURCE: Swedish Univ Agr Sci, Uppsala Biomed Ctr, Dept Anim
Breeding & Genet, Box 597, SE-75124 Uppsala, Sweden
(Reprint); Swedish Univ Agr Sci, Uppsala Biomed Ctr, Dept
Anim Breeding & Genet, SE-75124 Uppsala, Sweden; Arexis
AB, SE-41346 Gothenburg, Sweden; Uppsala Univ, Uppsala
Biomed Ctr, Dept Med Biochem & Microbiol, SE-75123
Uppsala, Sweden; Karolinska Inst, Dept Surg Sci, SE-17177
Stockholm, Sweden

COUNTRY OF AUTHOR: Sweden

SOURCE: AMERICAN JOURNAL OF PHYSIOLOGY-ENDOCRINOLOGY AND
METABOLISM, (1 FEB 2004) Vol. 286, No. 2, pp. E194-E200.
ISSN: 0193-1849.

PUBLISHER: AMER PHYSIOLOGICAL SOC, 9650 ROCKVILLE PIKE, BETHESDA, MD

20814 USA.
DOCUMENT TYPE: Article; Journal
LANGUAGE: English
REFERENCE COUNT: 22
ENTRY DATE: Entered STN: 23 Jan 2004
Last Updated on STN: 23 Jan 2004

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB Expression patterns of the three isoforms of the regulatory gamma-subunit of AMP-activated protein kinase (AMPK) were determined in various tissues from adult humans, mice, and rats, as well as in human primary muscle cells. Real-time PCR-based quantification of mRNA showed similar expression patterns in the three species and a good correlation with protein expression in mice and rats. The gamma3-isoform appeared highly specific to skeletal muscle, whereas gamma1 and gamma2 showed broad tissue distributions. Moreover, the proportion of white, type IIb fibers in the mouse and rat muscle samples, as indicated by real-time PCR quantification of Atp1b2 mRNA, showed a strong positive correlation with the expression of gamma3. In samples of white skeletal muscle, gamma3 clearly appeared to be the most abundant gamma-isoform. Differentiation of human primary muscle cells from myoblasts into multinucleated myotubes was accompanied by upregulation of gamma3 mRNA expression, whereas levels of gamma1 and gamma2 remained largely unchanged. However, even in these cultured myotubes, gamma2 was the most highly expressed isoform, indicating a considerable difference compared with adult skeletal muscle. Immunoblot analysis of mouse gastrocnemius and quadriceps muscle extracts precipitated with a gamma3-specific antibody showed that gamma3 was exclusively associated with the alpha2- and beta2-subunit isoforms. The observation that the AMPKgamma3 isoform is expressed primarily in white skeletal muscle, in which it is the predominant gamma-isoform, strongly suggests that gamma3 has a key role in this tissue.

L18 ANSWER 4 OF 11 BIOSIS COPYRIGHT (c) 2006 The Thomson Corporation on STN
ACCESSION NUMBER: 2005:299549 BIOSIS
DOCUMENT NUMBER: PREV200510088356
TITLE: Assignment of two isoforms of the AMP-activated protein kinase gamma subunits, PRKAG1 and PRKAG2 to porcine chromosomes 5 and 18, respectively by radiation hybrid panel mapping.
AUTHOR(S): Haberkern, G.; Regenhard, P.; Ottzen-Schirakow, G.; Kalm, E.; Looft, C. [Reprint Author]
CORPORATE SOURCE: Univ Kiel, Inst Anim Breeding and Husbandry, Olshausenstr 40, D-24098 Kiel, Germany
SOURCE: clooft@tierzucht.uni-kiel.de
Cytogenetic and Genome Research, (2004) Vol. 106, No. 1, pp. 142A-NIL_0001.
ISSN: 1424-8581.
DOCUMENT TYPE: Article
LANGUAGE: English
OTHER SOURCE: GenBank-NM_002733; EMBL-NM_002733; DDJB-NM_002733; GenBank-NM_016203; EMBL-NM_016203; DDJB-NM_016203; GenBank-BI401973; EMBL-BI401973; DDJB-BI401973; GenBank-BI326904; EMBL-BI326904; DDJB-BI326904
ENTRY DATE: Entered STN: 15 Aug 2005
Last Updated on STN: 15 Aug 2005

L18 ANSWER 5 OF 11 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN
ACCESSION NUMBER: 2004051204 EMBASE
TITLE: Expression profiling of the .gamma.-subunit isoforms of AMP-activated protein kinase suggests a major role for .gamma.3 in white skeletal muscle.
AUTHOR: Mahlapuu M.; Johansson C.; Lindgren K.; Hjalms G.; Barnes B.R.; Krook A.; Zierath J.R.; Andersson L.;

Marklund S.
CORPORATE SOURCE: S. Marklund, Dept. of Anim. Breeding and Genetics, Swed.
Univ. of Agricultural Sciences, Uppsala Biomedical Center,
SE-751 24 Uppsala, Sweden. Stefan.Marklund@bmc.uu.se
SOURCE: American Journal of Physiology - Endocrinology and
Metabolism, (2004) Vol. 286, No. 2 49-2, pp. E194-E200. .
Refs: 22
ISSN: 0193-1849 CODEN: AJPM
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 029 Clinical Biochemistry
LANGUAGE: English
SUMMARY LANGUAGE: English
ENTRY DATE: Entered STN: 20 Feb 2004
Last Updated on STN: 20 Feb 2004

AB Expression patterns of the three isoforms of the regulatory .gamma
.-subunit of AMP-activated protein kinase (AMPK) were determined
in various tissues from adult humans, mice, and rats, as well as
in human primary muscle cells. Real-time PCR-based
quantification of mRNA showed similar expression patterns in the three
species and a good correlation with protein expression in mice and rats.
The .gamma.3-isoform appeared highly specific to skeletal
muscle, whereas .gamma.1 and .gamma.2 showed broad
tissue distributions. Moreover, the proportion of white, type IIb fibers
in the mouse and rat muscle samples, as indicated by real-time PCR
quantification of Atplb2 mRNA, showed a strong positive correlation with
the expression of .gamma.3. In samples of white skeletal
muscle, .gamma.3 clearly appeared to be the most abundant .
gamma.-isoform. Differentiation of human primary muscle
cells from myoblasts into multinucleated myotubes was accompanied by
upregulation of .gamma.3 mRNA expression, whereas levels of .
gamma.1 and .gamma.2 remained largely unchanged.
However, even in these cultured myotubes, .gamma.2 was the most
highly expressed isoform, indicating a considerable difference compared
with adult skeletal muscle. Immunoblot analysis of mouse gastrocnemius
and quadriceps muscle extracts precipitated with a .gamma
.3-specific antibody showed that .gamma.3 was exclusively
associated with the α 2- and β 2-subunit isoforms. The
observation that the AMPK.gamma.3 isoform is expressed
primarily in white skeletal muscle, in which it is the predominant .
gamma.-isoform, strongly suggests that .gamma.3 has a
key role in this tissue.

L18 ANSWER 6 OF 11 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN
ACCESSION NUMBER: 2003-24128 BIOTECHDS
TITLE: New transgenic non-human animals expressing an
AMP-activated protein kinase gamma 3 subunit, useful as
models for improving treatment, prevention or diagnosis of
diseases related to energy metabolism, e.g. obesity or type 2
diabetes;
involving vector-mediated gene transfer and expression in
host cell for use in disease diagnosis and prevention
AUTHOR: ANDERSSON L; MARKLUND S
PATENT ASSIGNEE: AREXIS AB
PATENT INFO: WO 2003063586 7 Aug 2003
APPLICATION INFO: WO 2003-IB912 31 Jan 2003
PRIORITY INFO: US 2002-353430 1 Feb 2002; US 2002-353430 1 Feb 2002
DOCUMENT TYPE: Patent
LANGUAGE: English
OTHER SOURCE: WPI: 2003-663404 [62]

AB DERWENT ABSTRACT:
NOVELTY - A transgenic non-human animal having integrated
within its genome a transgene or a nucleic acid encoding an AMP-activated
protein kinase gamma3 subunit or its variant, where the nucleic acid is

operably linked to a regulatory element, is new.

DETAILED DESCRIPTION - The transgene has a nucleotide sequence that hybridizes under stringent hybridization conditions with a nucleic acid having a nucleotide sequence complementary to a fully defined sequence of 1470 base pairs (N1) given in the specification, where the sequence encodes an AMP-activated protein kinase γ 3 subunit or its variant, and where the transgene is operably linked to a promoter that drives expression in skeletal muscle. **INDEPENDENT CLAIMS** are included for the following: (1) an expression construct comprising a regulatory element operably linked to a nucleotide sequence having at least 75% sequence identity to the nucleotide sequence of N1, or a nucleotide sequence encoding a polypeptide having at least 75% sequence identity to a fully defined sequence of 489 amino acids (P1) given in the specification, or its portion, where the regulatory element is capable of mediating expression in skeletal muscle; (2) making a transgenic non-human animal cited above, comprising introducing the expression construct of (1) into an ovum, an embryo, or embryonic stem cells of a non-human animal; and (3) identifying a compound or composition for treating or preventing a disease related to energy metabolism, comprising: (a) administering a test compound or test composition to the transgenic non-human animal cited above, and evaluating the effect of the test compound or test composition on the energy metabolism of the transgenic non-human animal, where the test compound or test composition is identified as effective for the treatment or prevention of the disease related to energy metabolism if energy metabolism is altered; or (b) contacting a test compound or test composition with an organ, a tissue or cells derived from the transgenic non-human animal, and evaluating the effect of the test compound or test composition on the energy metabolism on the organ, tissue or cells, where the test compound or test composition is identified as effective for the treatment or prevention of the disease related to energy metabolism if energy metabolism is altered.

BIOTECHNOLOGY - Preferred Transgenic Animal: The transgenic non-human animal has an elevated glycogen content in skeletal muscle, and is selected from the group of mice, rats, rabbits, cats, dogs and pigs. The transgenic non-human animal is preferably a mouse or a pig. The transgene hybridizes under highly stringent conditions. The nucleic acid comprises a nucleotide sequence encoding a polypeptide having at least 75% sequence identity to the sequence of P1, a fully defined sequence of 489 amino acids (P2) given in the specification, or to a fragment of P1 or P2 at least 200 amino acids in length. The nucleic acid encodes a polypeptide having the amino acid sequence of P1 or P2, or an R225Q variant of the sequence of P1 or P2. The nucleic acid sequence comprises the nucleotide sequence of N1, a fully defined sequence of 1518 (N2) or 9100 (N3) base pairs given in the specification, a codon 225 variant of the sequence of N1 or N3, or a nucleotide sequence corresponding to the mouse Prkag3 gene. The regulatory element is a muscle specific regulatory element, such as a myosin light chain promoter, a myosin heavy chain promoter, a skeletal alpha actin promoter, a creatine kinase promoter, or an aldolase A promoter. Preferred Method: In making a transgenic non-human animal, the expression construct is microinjected into the ovum or embryo, or into embryonic stem cells, of the non-human animal. The expression construct is electroporated into the embryonic stem cells. In identifying a compound or composition for treating or preventing a disease related to energy metabolism, the tissue is skeletal muscle and the cells are muscle cells.

ACTIVITY - Antidiabetic; Anorectic; Antilipemic. No biological data given.

MECHANISM OF ACTION - None given.

USE - The transgenic non-human animals are useful as models for improving treatment, prevention or diagnosis of diseases related to energy metabolism, or for identifying a compound or composition for treating or preventing a disease related to energy

metabolism, e.g. obesity, dyslipidemia, insulin resistance syndrome, or type 2 diabetes. The expression constructs are useful for making transgenic non-human animals. (46 pages)

L18 ANSWER 7 OF 11 MEDLINE on STN DUPLICATE 1
ACCESSION NUMBER: 2004080675 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14970705
TITLE: Molecular characterization and mutational screening of the PRKAG3 gene in the horse.
AUTHOR: Park H B; Marklund S; Jeon J T; Mickelson J R; Valberg S J; Sandberg K; Andersson L
CORPORATE SOURCE: Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, Uppsala, Sweden.
SOURCE: Cytogenetic and genome research, (2003) Vol. 102, No. 1-4, pp. 211-6.
Journal code: 101142708. E-ISSN: 1424-859X.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 19 Feb 2004
Last Updated on STN: 8 Jun 2004
Entered Medline: 7 Jun 2004

AB The PRKAG3 gene encodes a muscle-specific isoform of the regulatory gamma subunit of AMP-activated protein kinase (AMPK). A major part of the coding PRKAG3 sequence was isolated from horse muscle cDNA using reverse-transcriptase (RT)-PCR analysis. Horse-specific primers were used to amplify genomic fragments containing 12 exons. Comparative sequence analysis of horse, pig, mouse, human, Fugu, and zebrafish was performed to establish the exon/intron organization of horse PRKAG3 and to study the homology among different isoforms of AMPK gamma genes in vertebrates. The results showed conclusively that the three different isoforms (gamma1, gamma2, and gamma3) were established already in bony fishes. Seven single nucleotide polymorphisms (SNPs), five causing amino acid substitutions, were identified in a screening across horse breeds with widely different phenotypes as regards muscle development and intended performance. The screening of a major part of the PRKAG3 coding sequence in a small case/control material of horses affected with polysaccharide storage myopathy did not reveal any mutation that was exclusively associated with this muscle storage disease. The breed comparison revealed several potentially interesting SNPs. One of these (Pro258Leu) occurs at a residue that is highly conserved among AMPK gamma genes. In an SNP screening, the variant allele was only found in horse breeds that can be classified as heavy (Belgian) or moderately heavy (North Swedish Trotter, Fjord, and Swedish Warmblood) but not in light horse breeds selected for speed or racing performance (Standardbred, Thoroughbred, and Quarter horse) or in ponies (Icelandic horses and Shetland pony). The results will facilitate future studies of the possible functional significance of PRKAG3 polymorphisms in horses.
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L18 ANSWER 8 OF 11 MEDLINE on STN DUPLICATE 2
ACCESSION NUMBER: 2004080667 MEDLINE
DOCUMENT NUMBER: PubMed ID: 14970697
TITLE: Comparative sequence analysis of the PRKAG3 region between human and pig: evolution of repetitive sequences and potential new exons.
AUTHOR: Amarger V; Erlandsson R; Pielberg G; Jeon J-T; Andersson L
CORPORATE SOURCE: Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, Uppsala, Sweden.

SOURCE: Cytogenetic and genome research, (2003) Vol. 102, No. 1-4,
pp. 163-72.
Journal code: 101142708. E-ISSN: 1424-859X.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200406
ENTRY DATE: Entered STN: 19 Feb 2004
Last Updated on STN: 8 Jun 2004
Entered Medline: 7 Jun 2004

AB The PRKAG3 gene encodes the gamma3 chain of AMP-activated protein kinase (AMPK). A non-conservative missense mutation in the PRKAG3 gene causes a dominant phenotype involving abnormally high glycogen content in pig skeletal muscle. We have determined >126 kb (in 13 contigs) of porcine genomic sequence surrounding the PRKAG3 gene and the corresponding mouse region covering the gene. A comparison of these PRKAG3 sequences and the human sequence was conducted and used to predict evolutionarily conserved regions, including regulatory regions. A comparison of the human genomic sequence and a porcine BAC sequence containing the PRKAG3 gene, revealed a conserved organization and the presence of three additional genes, CYP27A1 (cytochrome P450, family 27, subfamily A, polypeptide 1), STK36 (Serine Threonine Kinase 36), and the homolog of the unidentified human mRNA KIAA0173. Interspersed repetitive elements constituted 51.4 and 38.6% of this genomic region in human and pig, respectively. We were able to reliably align 12.6 kb of orthologous repeats shared between pig and human and these showed an average sequence identity of 72.4%. Our analysis revealed that the human KIAA0173 gene harbors alternative 5' untranslated exons originating from repetitive elements. This provides an obvious example how transposable elements may affect gene evolution.
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L18 ANSWER 9 OF 11 BIOTECHDS COPYRIGHT 2006 THE THOMSON CORP. on STN

ACCESSION NUMBER: 2002-02944 BIOTECHDS

TITLE: New variants of human AMP-activated protein-kinase gamma3 subunit associated with a metabolic disease e.g. diabetes or obesity and method for determining a risk estimate of diseases in subject by detecting the variant; the use of human recombinant protein in diabetes determination

AUTHOR: Andersson L; Luthman H; Marlund S

PATENT ASSIGNEE: Arexis

LOCATION: Uppsala, Sweden.

PATENT INFO: WO 2001077305 18 Oct 2001

APPLICATION INFO: WO 2001-SE765 6 Apr 2001

PRIORITY INFO: US 2000-195665 7 Apr 2000

DOCUMENT TYPE: Patent

LANGUAGE: English

OTHER SOURCE: WPI: 2001-657170 [75]

AB An isolated DNA (I) of 15 bp is claimed. (I) contains a gamma3 subunit of human AMP-activated protein-kinase (PRKAG3) sequence, containing a nucleotide sequence variant and nucleotides flanking the sequence variant. Also claimed are: determining (M1) a risk estimate of a metabolic disease in a subject; detecting (M2) a PRKAG3 protein variant in a subject; and an article of manufacture containing a substrate and an array of different DNA immobilized on the substrate. (M1) is useful in determining a risk estimate of a metabolic disease which is a diabetes or obesity in a subject, and (M2) is useful for detecting PRKAG3 protein variant in a subject. (25pp)

L18 ANSWER 10 OF 11 MEDLINE on STN

DUPLICATE 3

ACCESSION NUMBER: 2001332493 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 11401445
 TITLE: Comparative analysis of a BAC contig of the porcine RN region and the human transcript map: implications for the cloning of trait loci.
 AUTHOR: Jeon J T; Amarger V; Rogel-Gaillard C; Robic A; Bongcam-Rudloff E; Paul S; Looft C; Milan D; Chardon P; Andersson L
 CORPORATE SOURCE: Department of Animal Breeding and Genetics, Swedish University of Agricultural Sciences, Uppsala, S-751 24, Sweden.
 SOURCE: Genomics, (2001 Mar 15) Vol. 72, No. 3, pp. 297-303. Journal code: 8800135. ISSN: 0888-7543.
 PUB. COUNTRY: United States
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 OTHER SOURCE: GENBANK-AF296552; GENBANK-AF296553; GENBANK-G66941;

GENBANK-G66942; GENBANK-G66943; GENBANK-G66944;
 GENBANK-G66945; GENBANK-G66946; GENBANK-G66947;
 GENBANK-G66948; GENBANK-G66949; GENBANK-G66950;
 GENBANK-G66951; GENBANK-G66952; GENBANK-G66953;
 GENBANK-G66954; GENBANK-G66955; GENBANK-G66956;
 GENBANK-G66957; GENBANK-G66958; GENBANK-G66959;
 GENBANK-G66960; GENBANK-G66961; GENBANK-G66962;
 GENBANK-G66963; GENBANK-G66964; GENBANK-G66965;
 GENBANK-G66966; GENBANK-G66967; GENBANK-G66968;
 GENBANK-G66969; GENBANK-G66970; GENBANK-G66971;
 GENBANK-G66972; GENBANK-G66973; GENBANK-G66974;
 GENBANK-G66975; GENBANK-G66976; GENBANK-G66977;
 GENBANK-G66978; GENBANK-G66979; GENBANK-G66980;
 GENBANK-G66981; GENBANK-G66982; GENBANK-G66983;
 GENBANK-G66984; GENBANK-G66985; GENBANK-G66986;
 GENBANK-G66987; GENBANK-G66988; GENBANK-G66989;
 GENBANK-G66990; GENBANK-G66991; GENBANK-G66992;
 GENBANK-G67156

ENTRY MONTH: 200109
 ENTRY DATE: Entered STN: 10 Sep 2001
 Last Updated on STN: 10 Sep 2001
 Entered Medline: 6 Sep 2001

AB The poorly developed transcript maps and the limited resources for genome analysis hamper positional cloning of trait loci in farm animals. This study demonstrates that this will now be easier by the combined use of BAC contigs and the import of the near complete human transcript map. The conclusion was obtained by a comparative analysis of a 2.4-Mb BAC contig of the RN region in pigs. The contig was constructed as part of a successful positional cloning project, which identified PRKAG3 as the causative gene for the RN phenotype. A comparative map including the corresponding regions on human chromosome 2q35 and mouse chromosome 1 (region 36-44 cM) is reported. Sixteen coding sequences were mapped on the BAC contig. The majority of these were identified by BLAST searches of BAC end sequences and BAC shotgun sequences generated during the positional cloning project. Map data for the orthologues in humans were available for 12 of the 16 coding sequences, and all 12 have been assigned to 2q35. Furthermore, no evidence for any rearrangement in gene order was obtained. The extensive linkage conservation indicates that the near complete human transcript map will be an invaluable resource for positional cloning projects in pigs and other domestic animals.
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L18 ANSWER 11 OF 11 MEDLINE on STN
 ACCESSION NUMBER: 2000280150 MEDLINE
 DOCUMENT NUMBER: PubMed ID: 10818001

DUPLICATE 4

TITLE: A mutation in PRKAG3 associated with excess glycogen content in pig skeletal muscle.

AUTHOR: Milan D; Jeon J T; Looft C; Amarger V; Robic A; Thelander M; Rogel-Gaillard C; Paul S; Iannuccelli N; Rask L; Ronne H; Lundstrom K; Reinsch N; Gellin J; Kalm E; Roy P L; Chardon P; Andersson L

CORPORATE SOURCE: Laboratoire de Genetique Cellulaire, Institut National de la Recherche Agronomique (INRA), 31326 Castanet-Tolosan, France.

SOURCE: Science, (2000 May 19) Vol. 288, No. 5469, pp. 1248-51. Journal code: 0404511. ISSN: 0036-8075.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200005

ENTRY DATE: Entered STN: 6 Jun 2000
Last Updated on STN: 6 Jun 2000
Entered Medline: 25 May 2000

AB A high proportion of purebred Hampshire pigs carries the dominant RN-mutation, which causes high glycogen content in skeletal muscle. The mutation has beneficial effects on meat content but detrimental effects on processing yield. Here, it is shown that the mutation is a nonconservative substitution (R200Q) in the PRKAG3 gene, which encodes a muscle-specific isoform of the regulatory gamma subunit of adenosine monophosphate-activated protein kinase (AMPK). Loss-of-function mutations in the homologous gene in yeast (SNF4) cause defects in glucose metabolism, including glycogen storage. Further analysis of the PRKAG3 signaling pathway may provide insights into muscle physiology as well as the pathogenesis of noninsulin-dependent diabetes mellitus in humans, a metabolic disorder associated with impaired glycogen synthesis.

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(FILE 'HOME' ENTERED AT 15:31:36 ON 20 OCT 2006)

FILE 'SCISEARCH' ENTERED AT 15:32:29 ON 20 OCT 2006

FILE 'MEDLINE, EMBASE, BIOSIS, BIOTECHDS, SCISEARCH, HCAPLUS, NTIS, LIFESCI' ENTERED AT 15:32:43 ON 20 OCT 2006

L1 828 S AMPK AND GAMMA

L2 320 S HUMAN AND L1

L3 184 S PRKAG3

L4 52 S HUMAN AND L3

L5 347 S L2 OR L4

L6 0 S METABOLOIL? AND L5

L7 0 S METABOLOL? AND L5

L8 203 S METABOL? AND L5

L9 112 DUP REM L8 (91 DUPLICATES REMOVED)

L10 4227 S GLYCOGEN (W)ACCUMULAT?

L11 8 S L9 AND L10
E ANDERSSON L/AU

L12 2704 S E3
E LOOFT C/AU

L13 141 S E3
E CHARDON P/AU

L14 482 S E3
E MILAN D/AU

L15 417 S E3

L16 3620 S L12 OR L13 OR L14 OR L15

L17 27 S L5 AND L16

L18 11 DUP REM L17 (16 DUPLICATES REMOVED)

	Issue Date	Pages	Document ID	Title
1	20060706	109	US 2006014794 7 A1	AMPK pathway components
2	20060608	249	US 2006012218 1 A1	Heteroaromatic pentacyclic compound and medicinal use thereof
3	20060420	33	US 2006008407 2 A1	Drug targets for the treatment of neurodegenerative disorders
4	20060420	35	US 2006008407 1 A1	Drug targets for the treatment of neurodegenerative disorders
5	20060330	144	US 2006006841 4 A1	Identification of aging genes through large-scale analysis
6	20060105	447	US 2006000332 2 A1	Bioinformatically detectable group of novel regulatory genes and uses thereof
7	20050915	26	US 2005020251 1 A1	AMP-activated protein kinase (AMPK) inhibitor screening assay
8	20050224	70	US 2005004350 7 A1	Acyl-nucleotide probes and methods of their synthesis and use in proteomic analysis
9	20050203	21	US 2005002623 3 A1	Methods of monitoring and modulating LKB1 activity and its downstream targets
10	20040624	21	US 2004012138 5 A1	Variants of the human AMP-activated protein kinase gamma 3 subunit
11	20031204	125	US 2003022441 3 A1	Nucleic acids containing single nucleotide polymorphisms and methods of use thereof

	Issue Date	Pages	Document ID	Title
12	20030911	64	US 20030170219 A1	Disease associated protein kinases
13	20030220	48	US 20030036095 A1	Highly sensitive proteomic analysis methods, and kits and systems for practicing the same
14	20021003	13	US 20020142310 A1	Variants of the human AMP-activated protein kinase gamma 3 subunit
15	20020627	196	US 20020081659 A1	Nucleic acids, proteins and antibodies
16	20040106	141	US 6673549 B1	Genes expressed in C3A liver cell cultures treated with steroids
17	20010327	62	US 6207148 B1	Disease associated protein kinases
18	20000926	30	US 6124125 A	AMP activated protein kinase
19	19990323	60	US 5885803 A	Disease associated protein kinases

	Issue Date	Page s	Document ID	Title
1	20060216	49	US 20060037090 A1	Selecting animals for desired genotypic or potential phenotypic properties
2	20060126	75	US 20060019256 A1	Compositions and methods for treating and diagnosing cancer
3	20051208	96	US 20050272057 A1	Small segments of DNA determine animal identity and source
4	20050922	48	US 20050208551 A1	Novel PRKAG3 alleles and use of the same as genetic markers for reproductive and meat quality traits
5	20050915	26	US 20050202511 A1	AMP-activated protein kinase (AMPK) inhibitor screening assay
6	20050804	25	US 20050172348 A1	Transgenic animals expressing prkag3
7	20050714	31	US 20050155091 A1	Prkag3 gene promoter and uses thereof
8	20040624	21	US 20040121385 A1	Variants of the human AMP-activated protein kinase gamma 3 subunit
9	20030123	49	US 20030017470 A1	Novel PRKAG3 alleles and use of the same as genetic markers for reproductive and meat quality traits
10	20021003	13	US 20020142310 A1	Variants of the human AMP-activated protein kinase gamma 3 subunit
11	20050719	46	US 6919177 B2	PRKAG3 alleles and use of the same as genetic markers for reproductive and meat quality traits

	Issue Date	Pages	Document ID	Title
1	20060216	49	US 20060037090 A1	Selecting animals for desired genotypic or potential phenotypic properties
2	20060126	75	US 20060019256 A1	Compositions and methods for treating and diagnosing cancer
3	20050922	48	US 20050208551 A1	Novel PRKAG3 alleles and use of the same as genetic markers for reproductive and meat quality traits
4	20050915	26	US 20050202511 A1	AMP-activated protein kinase (AMPK) inhibitor screening assay
5	20050804	25	US 20050172348 A1	Transgenic animals expressing prkag3
6	20050714	31	US 20050155091 A1	Prkag3 gene promoter and uses thereof
7	20040624	21	US 20040121385 A1	Variants of the human AMP-activated protein kinase gamma 3 subunit
8	20030123	49	US 20030017470 A1	Novel PRKAG3 alleles and use of the same as genetic markers for reproductive and meat quality traits
9	20021003	13	US 20020142310 A1	Variants of the human AMP-activated protein kinase gamma 3 subunit
10	20050719	46	US 6919177 B2	PRKAG3 alleles and use of the same as genetic markers for reproductive and meat quality traits

	L #	Hits	Search Text
1	L1	282	AMPK same gamma
2	L2	19	l1 same human
3	L3	5362	metabolic same disorder
4	L4	0	l1 same l3
5	L5	11	PRKAG3
6	L6	3277 3	ANDERSSON LOOFT CHARDON MILAN
7	L7	10	l5 and l6
8	L8	4	l2 and l6